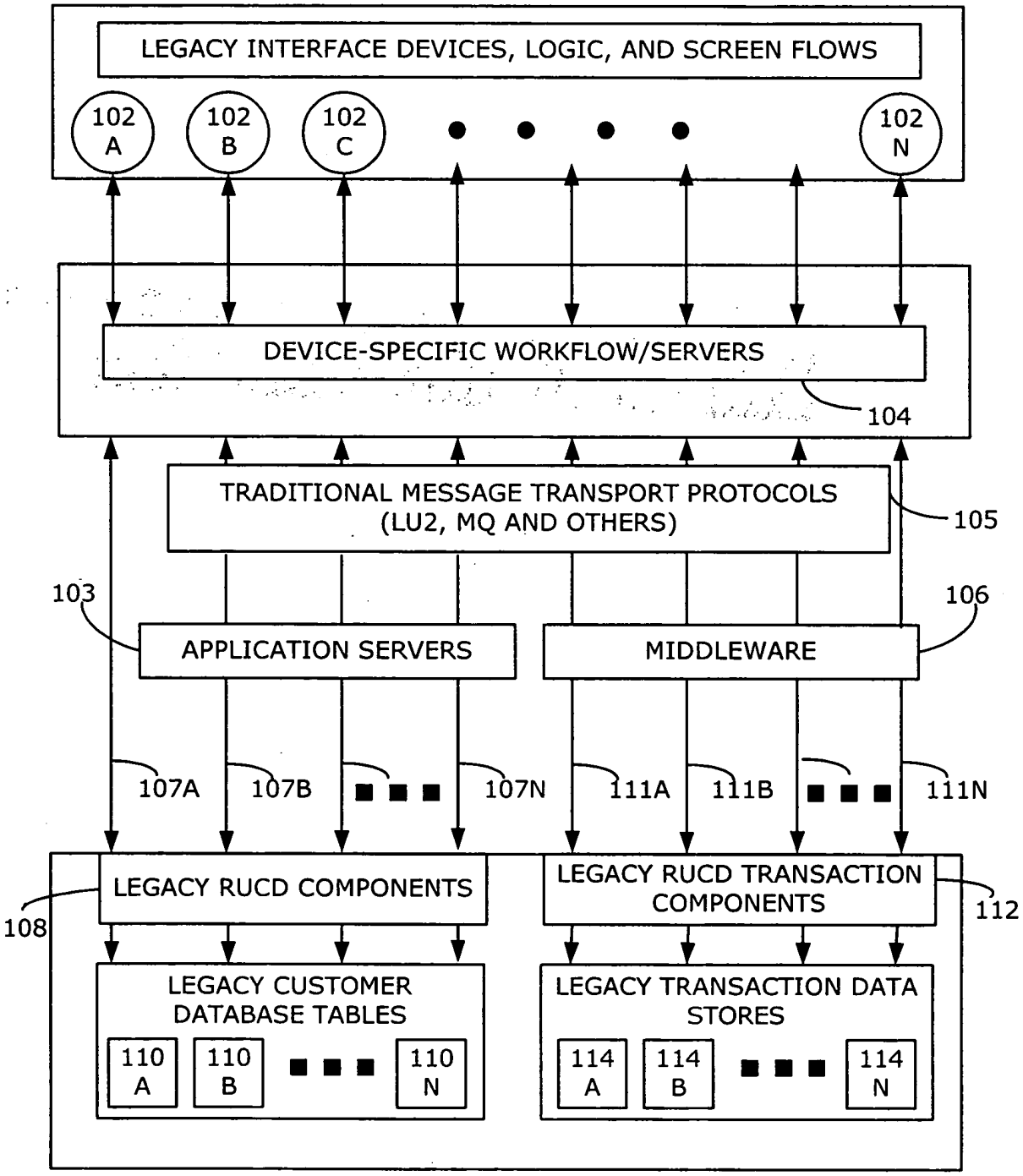
LEGACY INTERFACE DEVICES, LOGIC, AND SCREEN FLOWS
102 A
102 B
102 C
102 N
DEVICE-SPECIFIC WORKFLOW/SERVERS
104
TRADITIONAL MESSAGE TRANSPORT PROTOCOLS (LU2, MQ AND OTHERS)
105
103
106
APPLICATION SERVERS
MIDDLEWARE
107A
107B
107N
111A
111B
111N
LEGACY RUCD COMPONENTS
LEGACY RUCD TRANSACTION COMPONENTS
108
112
LEGACY CUSTOMER DATABASE TABLES
110 A
110 B
110 N
LEGACY TRANSACTION DATA STORES
114 A
114 B
114 N

FIG.1

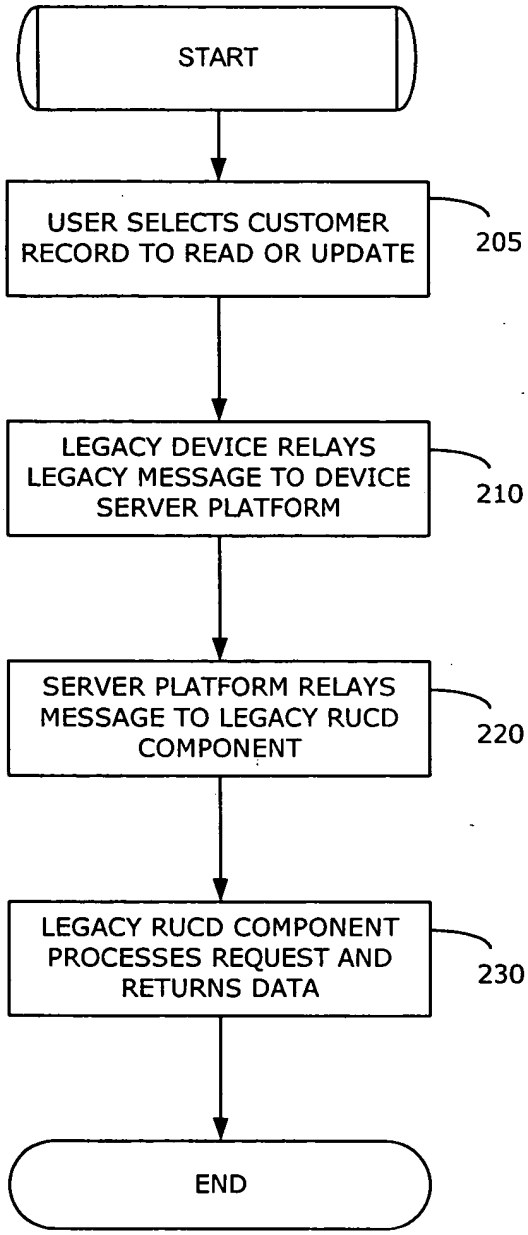
START
USER SELECTS CUSTOMER RECORD TO READ OR UPDATE
205
LEGACY DEVICE RELAYS LEGACY MESSAGE TO DEVICE SERVER PLATFORM
210
SERVER PLATFORM RELAYS MESSAGE TO LEGACY RUCD COMPONENT
220
LEGACY RUCD COMPONENT PROCESSES REQUEST AND RETURNS DATA
230
END

FIG.2

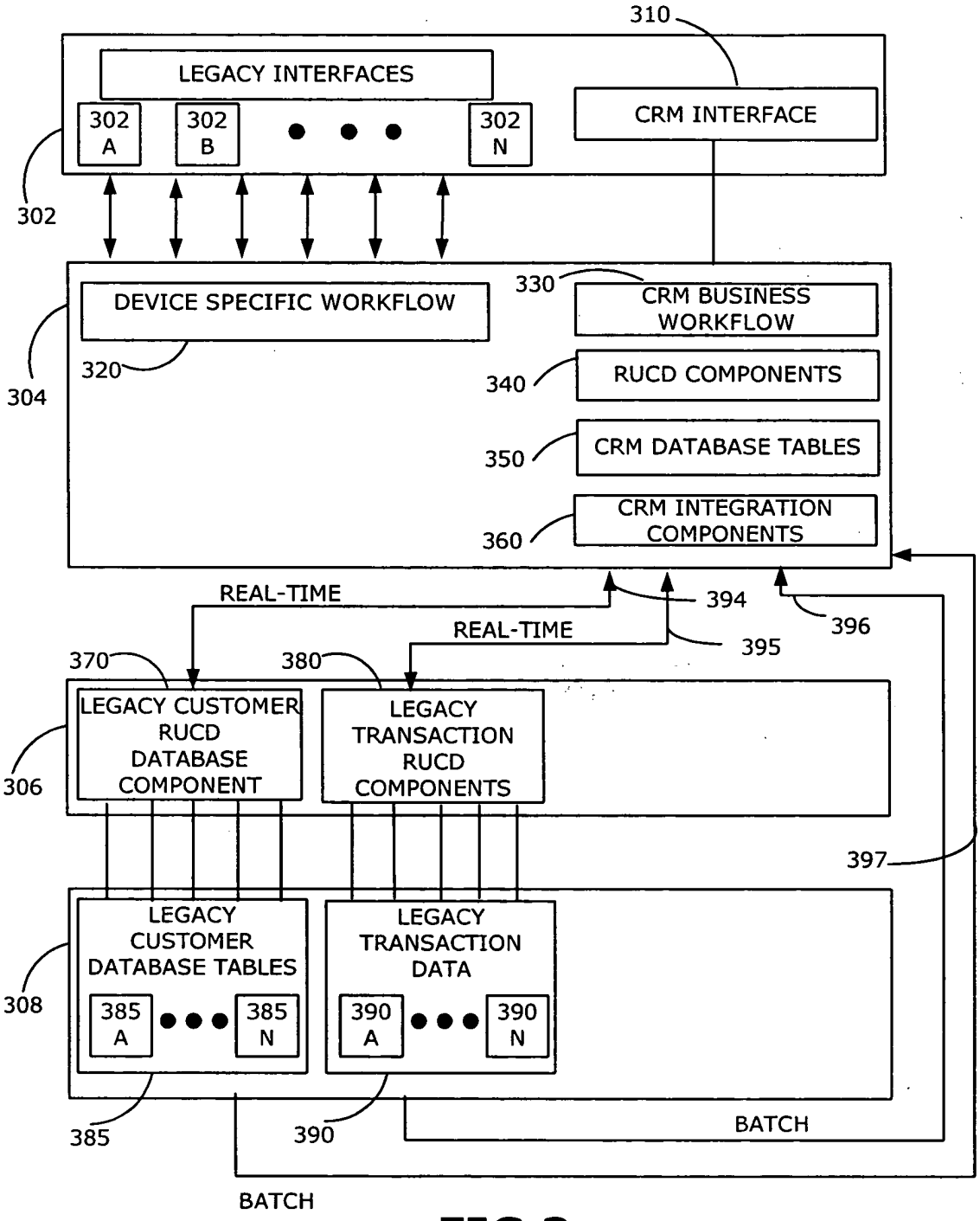
310
LEGACY INTERFACES
302 A
302 B
302 N
CRM INTERFACE
302
DEVICE SPECIFIC WORKFLOW
330
CRM BUSINESS WORKFLOW
304
320
340
RUCD COMPONENTS
350
CRM DATABASE TABLES
360
CRM INTEGRATION COMPONENTS
REAL-TIME
394
REAL-TIME
395
396
370
380
LEGACY CUSTOMER RUCD DATABASE COMPONENT
LEGACY TRANSACTION RUCD COMPONENTS
306
397
LEGACY CUSTOMER DATABASE TABLES
LEGACY TRANSACTION DATA
308
385 A
385 N
390 A
390 N
385
390
BATCH
BATCH

FIG.3

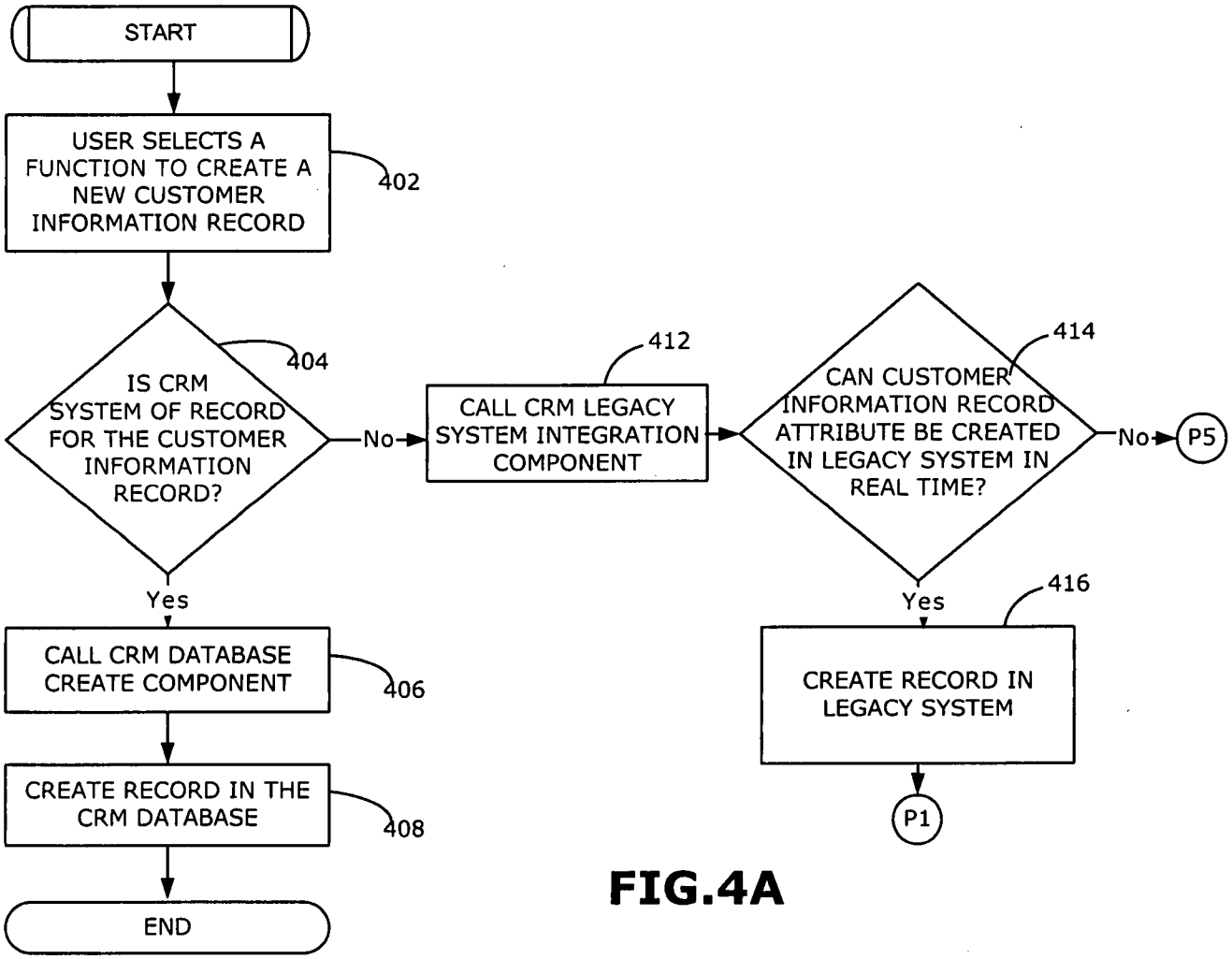
START
USER SELECTS A FUNCTION TO CREATE A NEW CUSTOMER INFORMATION RECORD
402
IS CRM SYSTEM OF RECORD FOR THE CUSTOMER INFORMATION RECORD?
404
No
CALL CRM LEGACY SYSTEM INTEGRATION COMPONENT
412
CAN CUSTOMER INFORMATION RECORD ATTRIBUTE BE CREATED IN LEGACY SYSTEM IN REAL TIME?
414
No
P5
Yes
CALL CRM DATABASE CREATE COMPONENT
406
CREATE RECORD IN THE CRM DATABASE
408
END
Yes
416
CREATE RECORD IN LEGACY SYSTEM
P1

FIG.4A

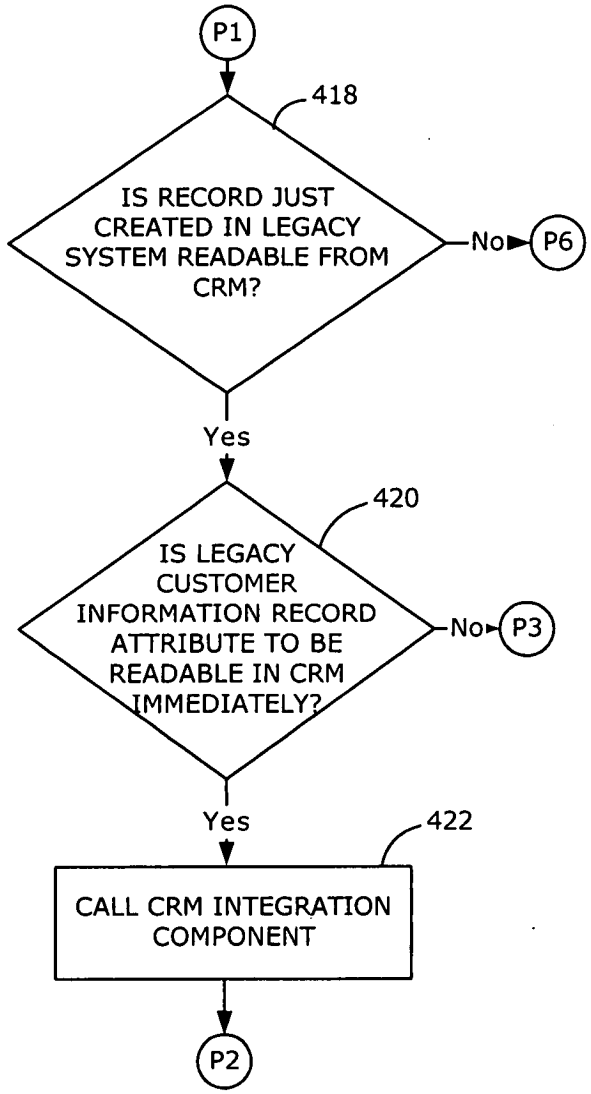
P1
418
IS RECORD JUST CREATED IN LEGACY SYSTEM READABLE FROM CRM?
No
P6
Yes
420
IS LEGACY CUSTOMER INFORMATION RECORD ATTRIBUTE TO BE READABLE IN CRM IMMEDIATELY?
No
P3
Yes
422
CALL CRM INTEGRATION COMPONENT
P2

FIG.4B

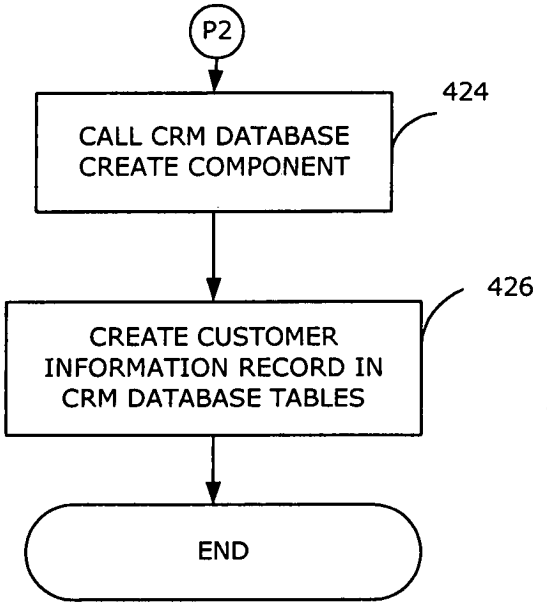
P2
CALL CRM DATABASE CREATE COMPONENT
424
CREATE CUSTOMER INFORMATION RECORD IN CRM DATABASE TABLES
426
END

FIG.4C

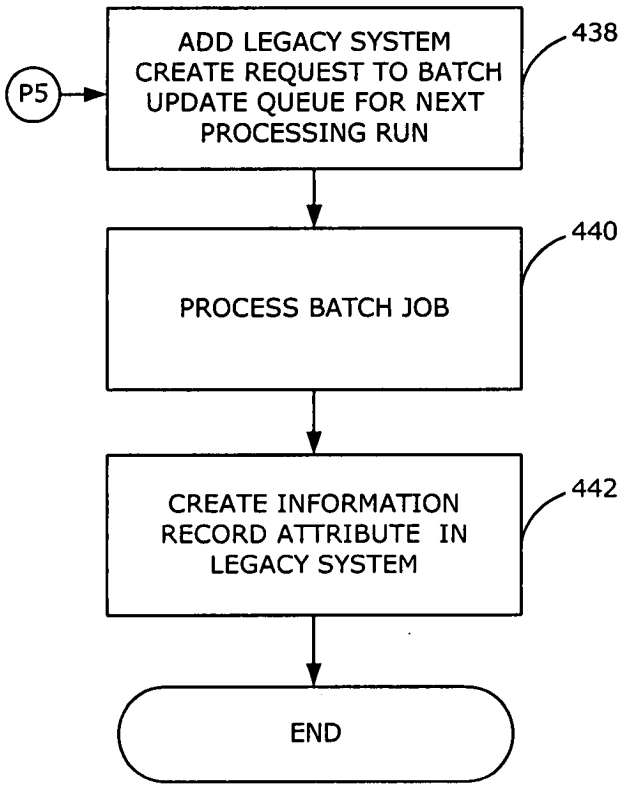
P5
ADD LEGACY SYSTEM CREATE REQUEST TO BATCH UPDATE QUEUE FOR NEXT PROCESSING RUN
438
PROCESS BATCH JOB
440
CREATE INFORMATION RECORD ATTRIBUTE IN LEGACY SYSTEM
442
END

FIG.4D

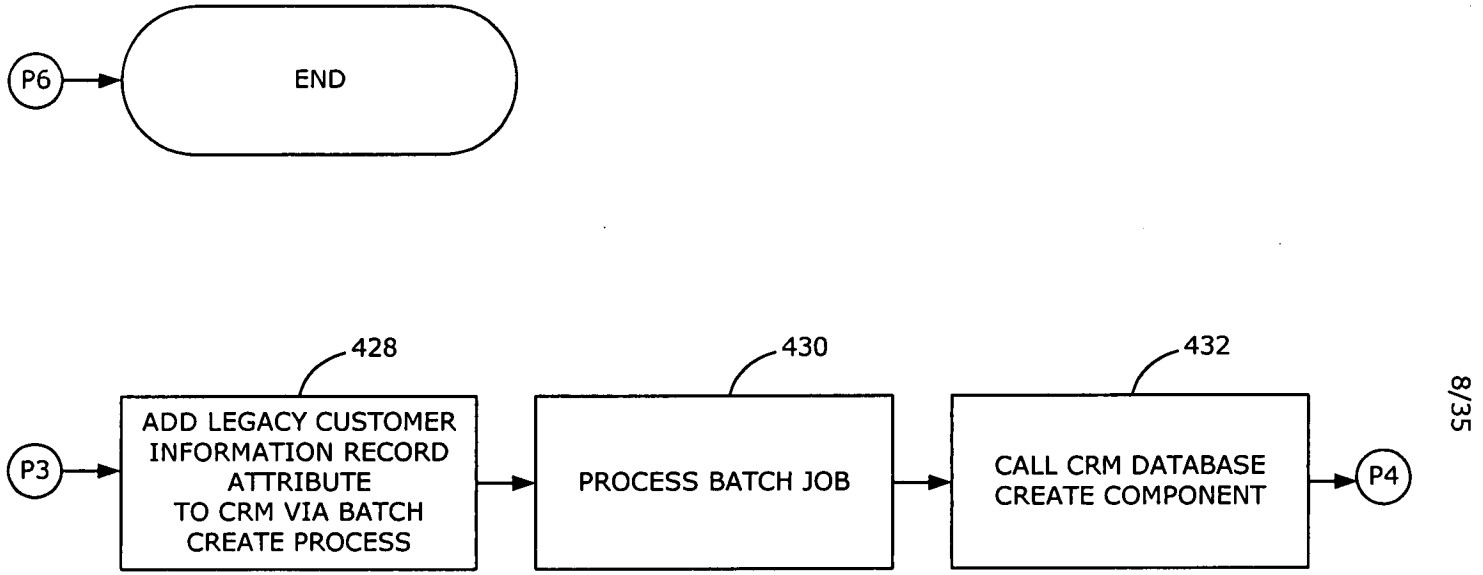
P6
END
428
430
432
P3
ADD LEGACY CUSTOMER INFORMATION RECORD ATTRIBUTE TO CRM VIA BATCH CREATE PROCESS
PROCESS BATCH JOB
CALL CRM DATABASE CREATE COMPONENT
P4

FIG.4E

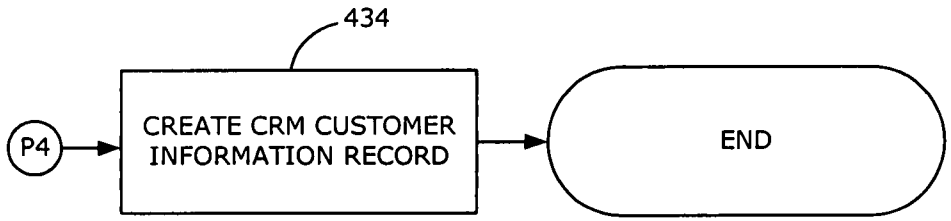

FIG.4F

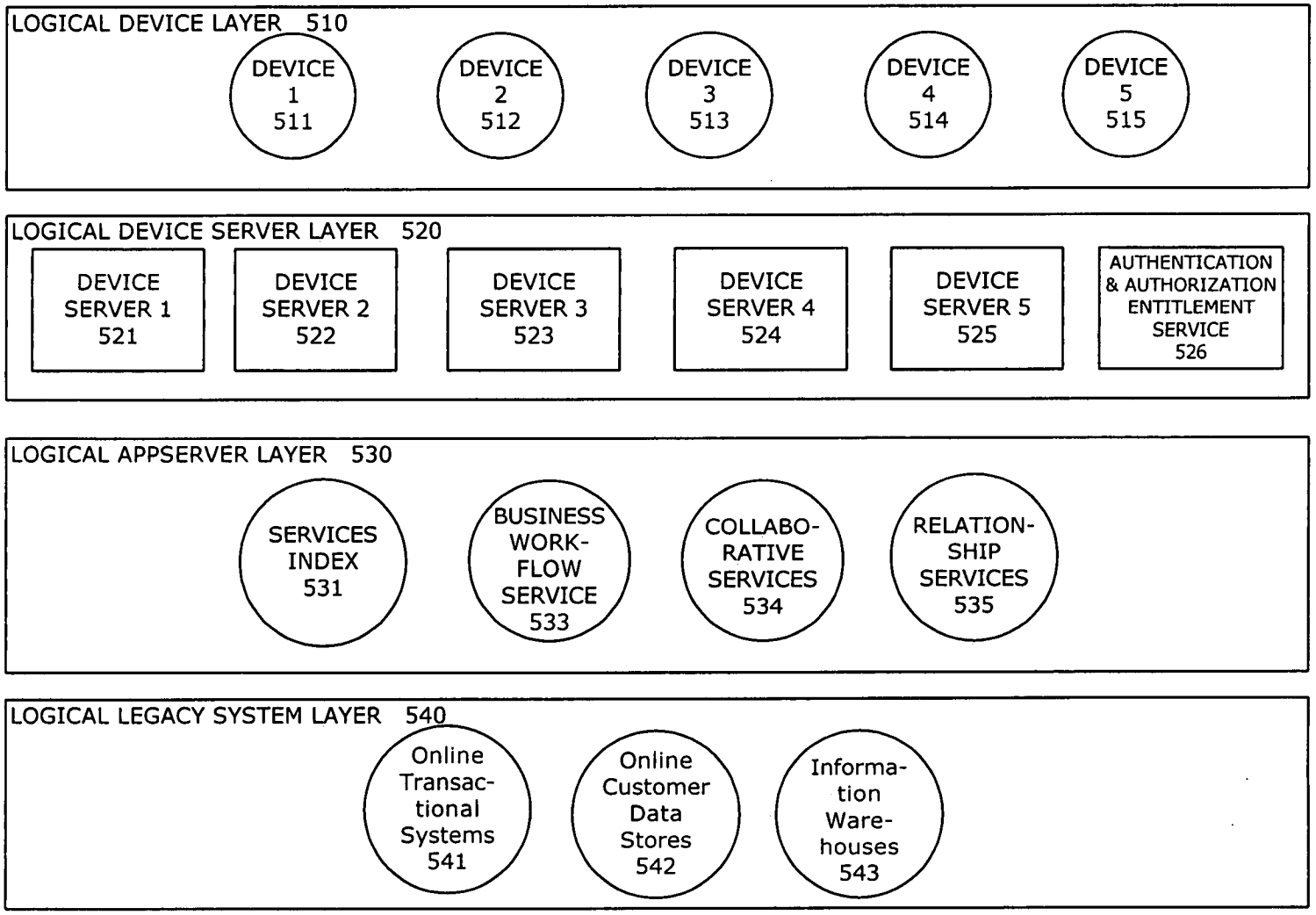
LOGICAL DEVICE LAYER 510
DEVICE 1 511
DEVICE 2 512
DEVICE 3 513
DEVICE 4 514
DEVICE 5 515
LOGICAL DEVICE SERVER LAYER 520
DEVICE SERVER 1 521
DEVICE SERVER 2 522
DEVICE SERVER 3 523
DEVICE SERVER 4 524
DEVICE SERVER 5 525
AUTHENTICATION & AUTHORIZATION ENTITLEMENT SERVICE 526
LOGICAL APPSERVER LAYER 530
SERVICES INDEX 531
BUSINESS WORK-FLOW SERVICE 533
COLLABO-RATIVE SERVICES 534
RELATION-SHIP SERVICES 535
LOGICAL LEGACY SYSTEM LAYER 540
Online Transac-tional Systems 541
Online Customer Data Stores 542
Informa-tion Ware-houses 543

FIG.5

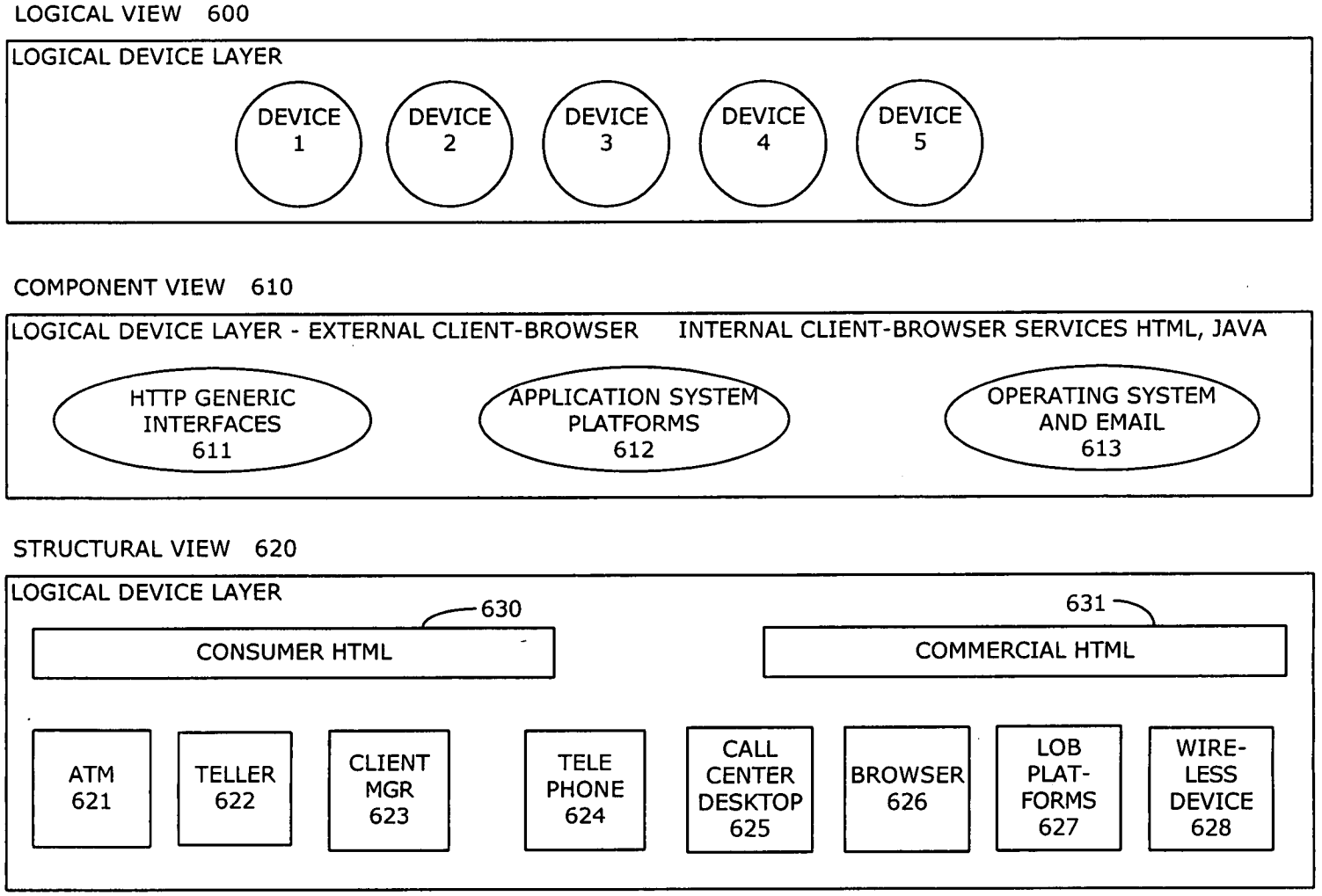
LOGICAL VIEW 600
LOGICAL DEVICE LAYER
DEVICE 1
DEVICE 2
DEVICE 3
DEVICE 4
DEVICE 5
COMPONENT VIEW 610
LOGICAL DEVICE LAYER - EXTERNAL CLIENT-BROWSER
INTERNAL CLIENT-BROWSER SERVICES HTML, JAVA
HTTP GENERIC INTERFACES 611
APPLICATION SYSTEM PLATFORMS 612
OPERATING SYSTEM AND EMAIL 613
STRUCTURAL VIEW 620
LOGICAL DEVICE LAYER
630
CONSUMER HTML
631
COMMERCIAL HTML
ATM 621
TELLER 622
CLIENT MGR 623
TELE PHONE 624
CALL CENTER DESKTOP 625
BROWSER 626
LOB PLAT-FORMS 627
WIRE-LESS DEVICE 628

FIG.6

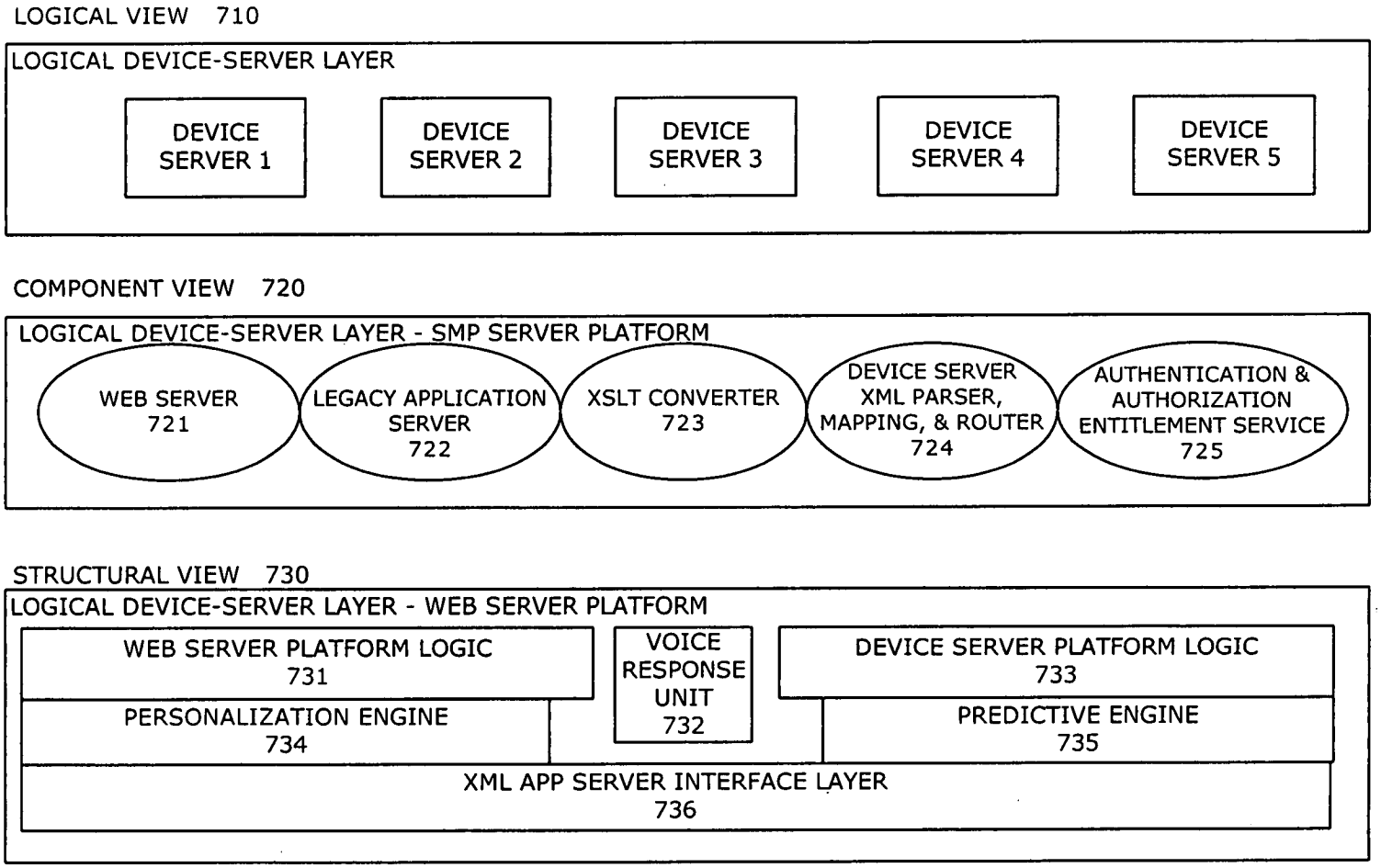
LOGICAL VIEW 710
LOGICAL DEVICE-SERVER LAYER
DEVICE SERVER 1
DEVICE SERVER 2
DEVICE SERVER 3
DEVICE SERVER 4
DEVICE SERVER 5
COMPONENT VIEW 720
LOGICAL DEVICE-SERVER LAYER - SMP SERVER PLATFORM
WEB SERVER 721
LEGACY APPLICATION SERVER 722
XSLT CONVERTER 723
DEVICE SERVER XML PARSER, MAPPING, & ROUTER 724
AUTHENTICATION & AUTHORIZATION ENTITLEMENT SERVICE 725
STRUCTURAL VIEW 730
LOGICAL DEVICE-SERVER LAYER - WEB SERVER PLATFORM
WEB SERVER PLATFORM LOGIC 731
VOICE RESPONSE UNIT 732
DEVICE SERVER PLATFORM LOGIC 733
PERSONALIZATION ENGINE 734
PREDICTIVE ENGINE 735
XML APP SERVER INTERFACE LAYER 736

FIG.7

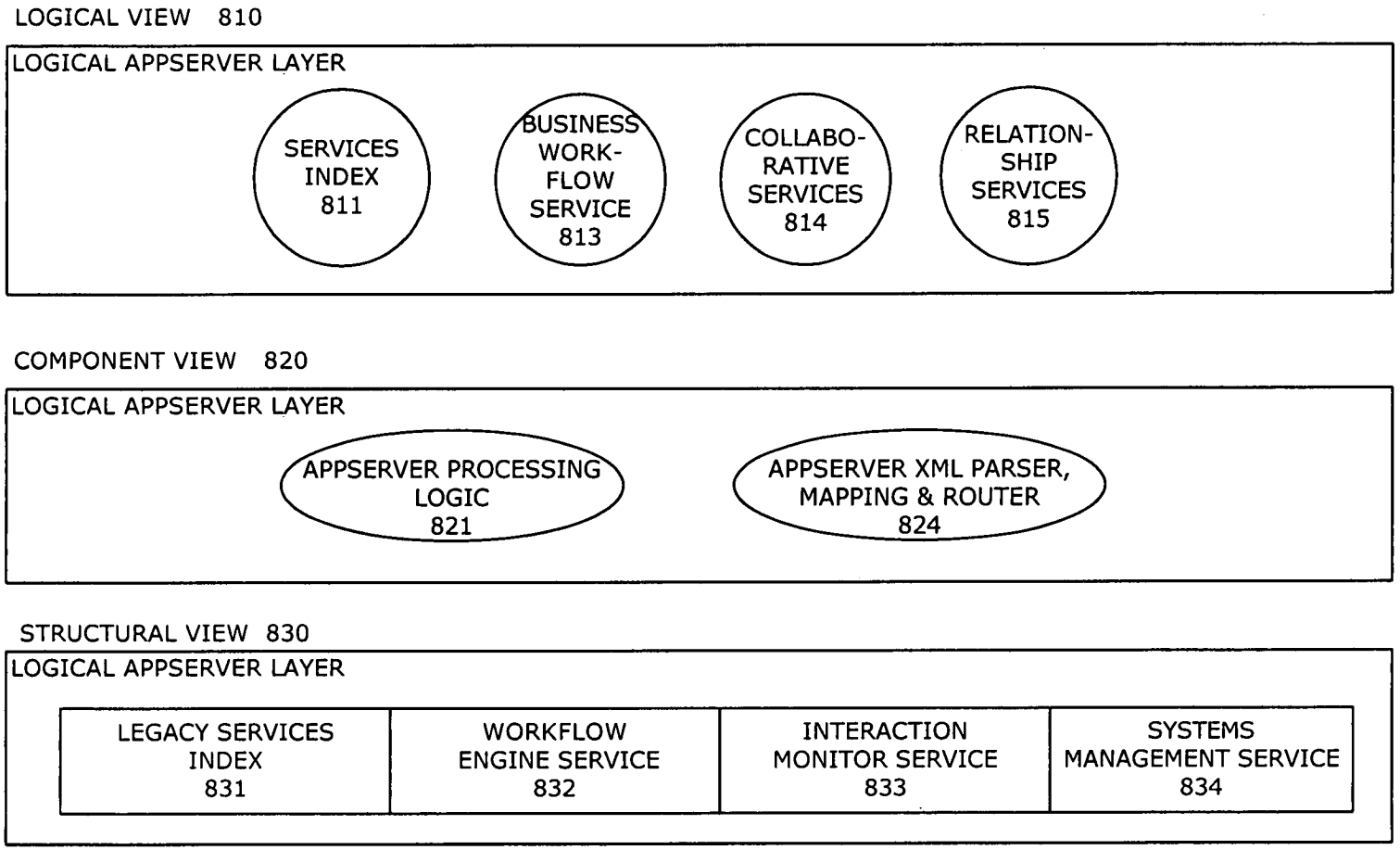
LOGICAL VIEW 810
LOGICAL APPSERVER LAYER
SERVICES INDEX 811
BUSINESS WORK-FLOW SERVICE 813
COLLABO-RATIVE SERVICES 814
RELATION-SHIP SERVICES 815
COMPONENT VIEW 820
LOGICAL APPSERVER LAYER
APPSERVER PROCESSING LOGIC 821
APPSERVER XML PARSER, MAPPING & ROUTER 824
STRUCTURAL VIEW 830
LOGICAL APPSERVER LAYER
LEGACY SERVICES INDEX 831
WORKFLOW ENGINE SERVICE 832
INTERACTION MONITOR SERVICE 833
SYSTEMS MANAGEMENT SERVICE 834

FIG.8

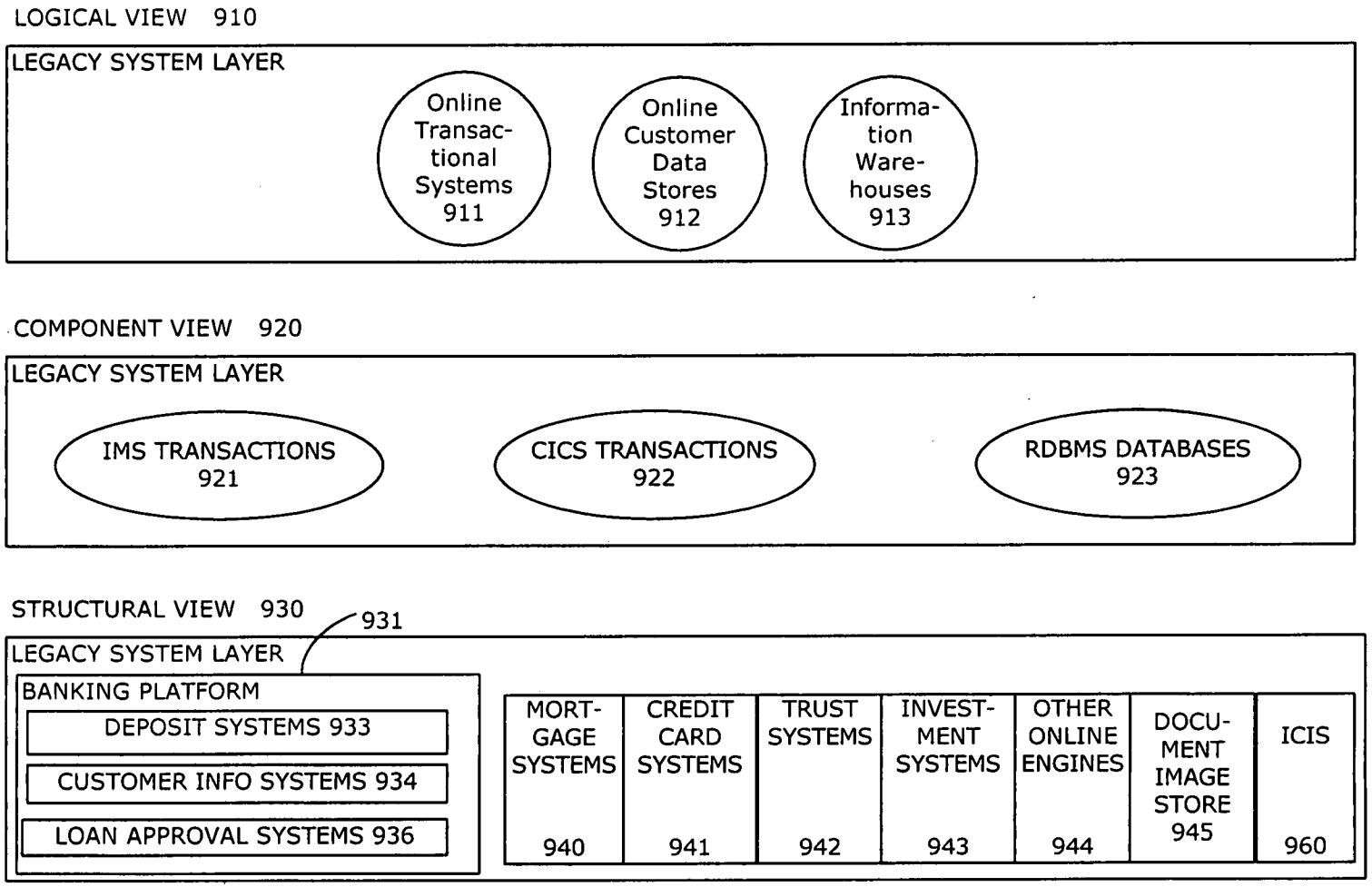
LOGICAL VIEW 910
LEGACY SYSTEM LAYER
Online Transac-tional Systems 911
Online Customer Data Stores 912
Informa-tion Ware-houses 913
COMPONENT VIEW 920
LEGACY SYSTEM LAYER
IMS TRANSACTIONS 921
CICS TRANSACTIONS 922
RDBMS DATABASES 923
STRUCTURAL VIEW 930
931
LEGACY SYSTEM LAYER
BANKING PLATFORM
DEPOSIT SYSTEMS 933
CUSTOMER INFO SYSTEMS 934
LOAN APPROVAL SYSTEMS 936
MORT-GAGE SYSTEMS 940
CREDIT CARD SYSTEMS 941
TRUST SYSTEMS 942
INVEST-MENT SYSTEMS 943
OTHER ONLINE ENGINES 944
DOCU-MENT IMAGE STORE 945
ICIS 960

FIG.9

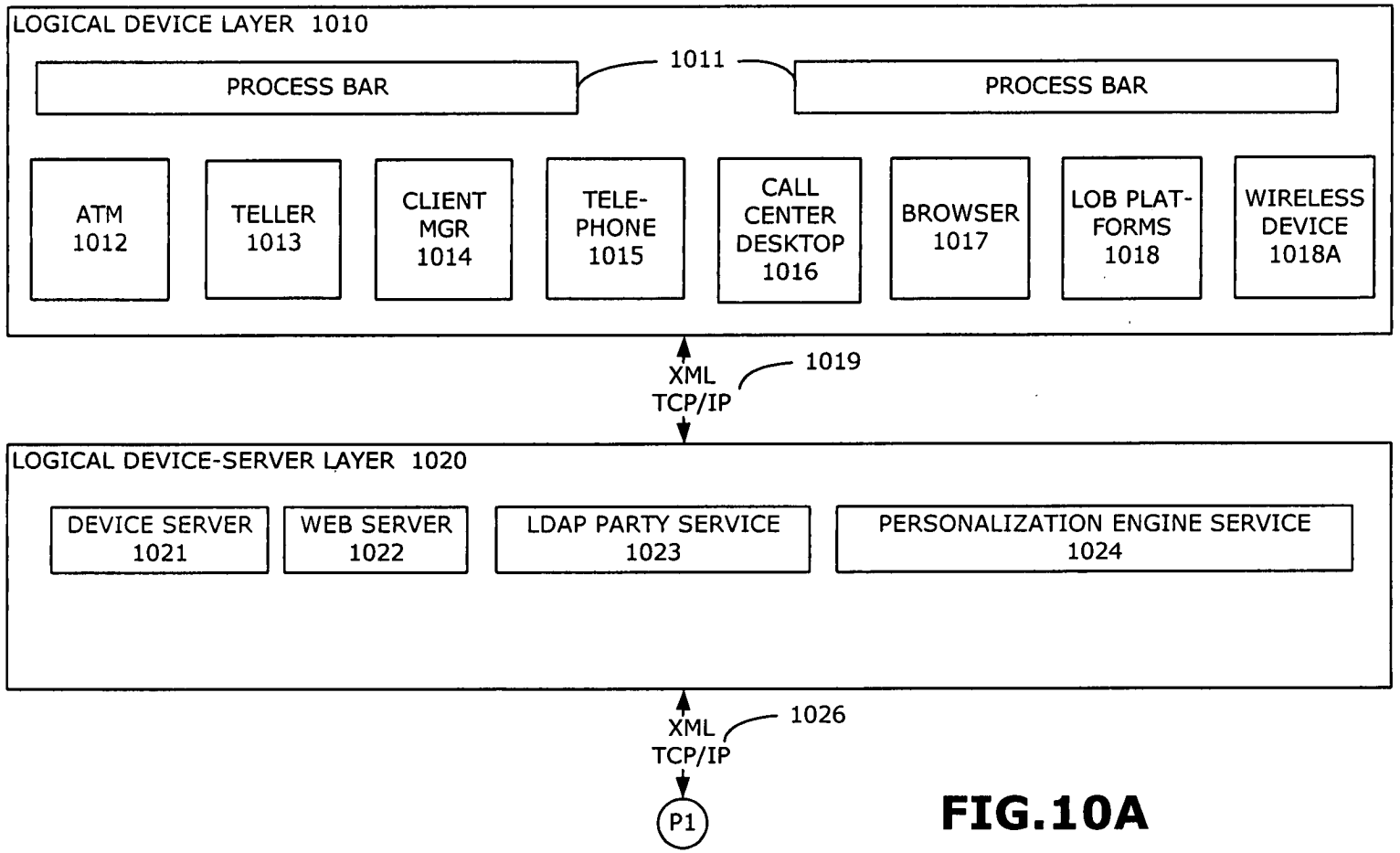
LOGICAL DEVICE LAYER 1010
PROCESS BAR
1011
PROCESS BAR
ATM 1012
TELLER 1013
CLIENT MGR 1014
TELE-PHONE 1015
CALL CENTER DESKTOP 1016
BROWSER 1017
LOB PLAT-FORMS 1018
WIRELESS DEVICE 1018A
XML TCP/IP
1019
LOGICAL DEVICE-SERVER LAYER 1020
DEVICE SERVER 1021
WEB SERVER 1022
LDAP PARTY SERVICE 1023
PERSONALIZATION ENGINE SERVICE 1024
XML TCP/IP
1026
P1

FIG.10A

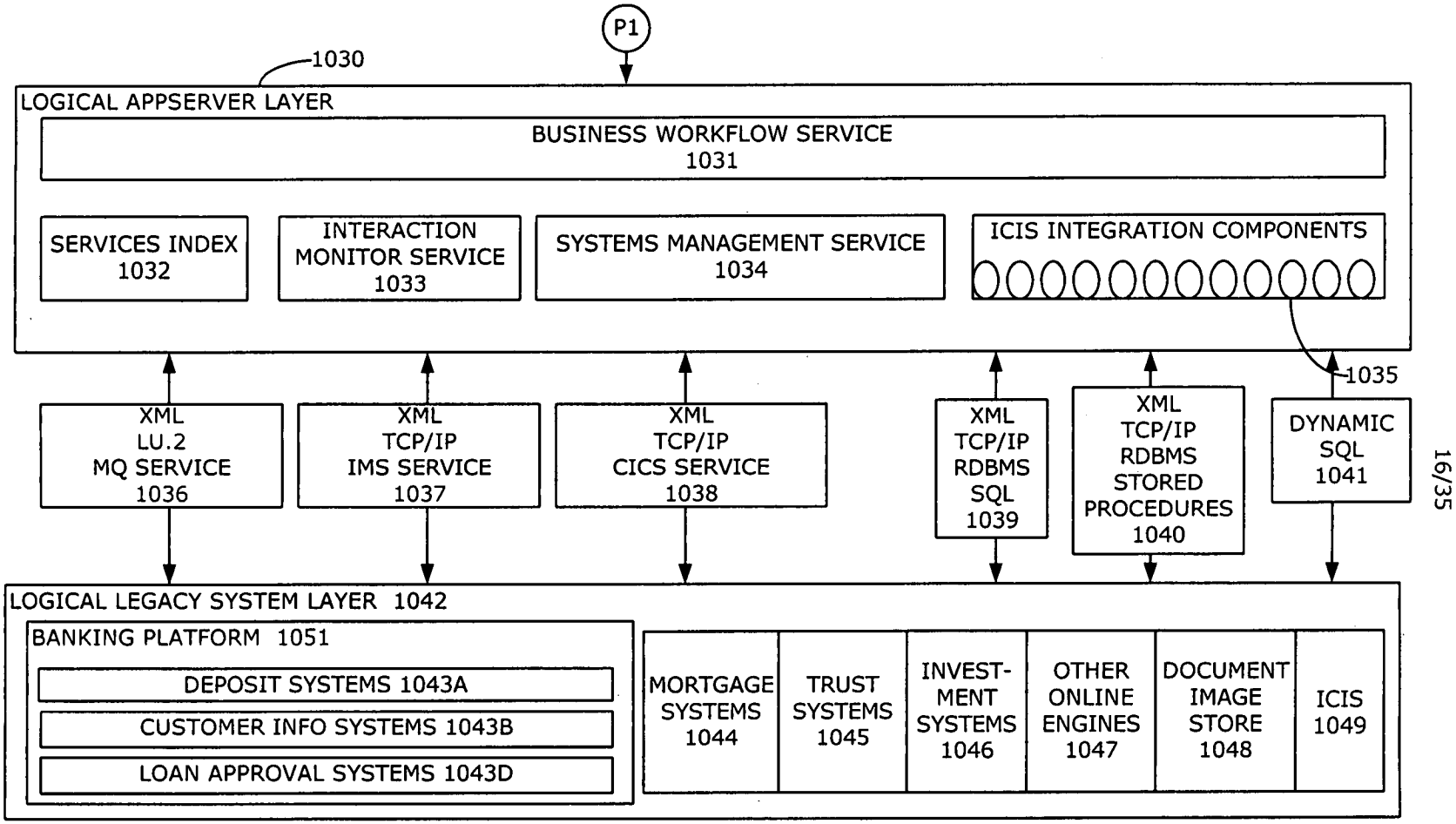
P1
1030
LOGICAL APPSERVER LAYER
BUSINESS WORKFLOW SERVICE
1031
SERVICES INDEX
1032
INTERACTION
MONITOR SERVICE
1033
SYSTEMS MANAGEMENT SERVICE
1034
ICIS INTEGRATION COMPONENTS
1035
XML
LU.2
MQ SERVICE
1036
XML
TCP/IP
IMS SERVICE
1037
XML
TCP/IP
CICS SERVICE
1038
XML
TCP/IP
RDBMS
SQL
1039
XML
TCP/IP
RDBMS
STORED
PROCEDURES
1040
DYNAMIC
SQL
1041
LOGICAL LEGACY SYSTEM LAYER 1042
BANKING PLATFORM 1051
DEPOSIT SYSTEMS 1043A
CUSTOMER INFO SYSTEMS 1043B
LOAN APPROVAL SYSTEMS 1043D
MORTGAGE
SYSTEMS
1044
TRUST
SYSTEMS
1045
INVEST-
MENT
SYSTEMS
1046
OTHER
ONLINE
ENGINES
1047
DOCUMENT
IMAGE
STORE
1048
ICIS
1049

FIG.10B

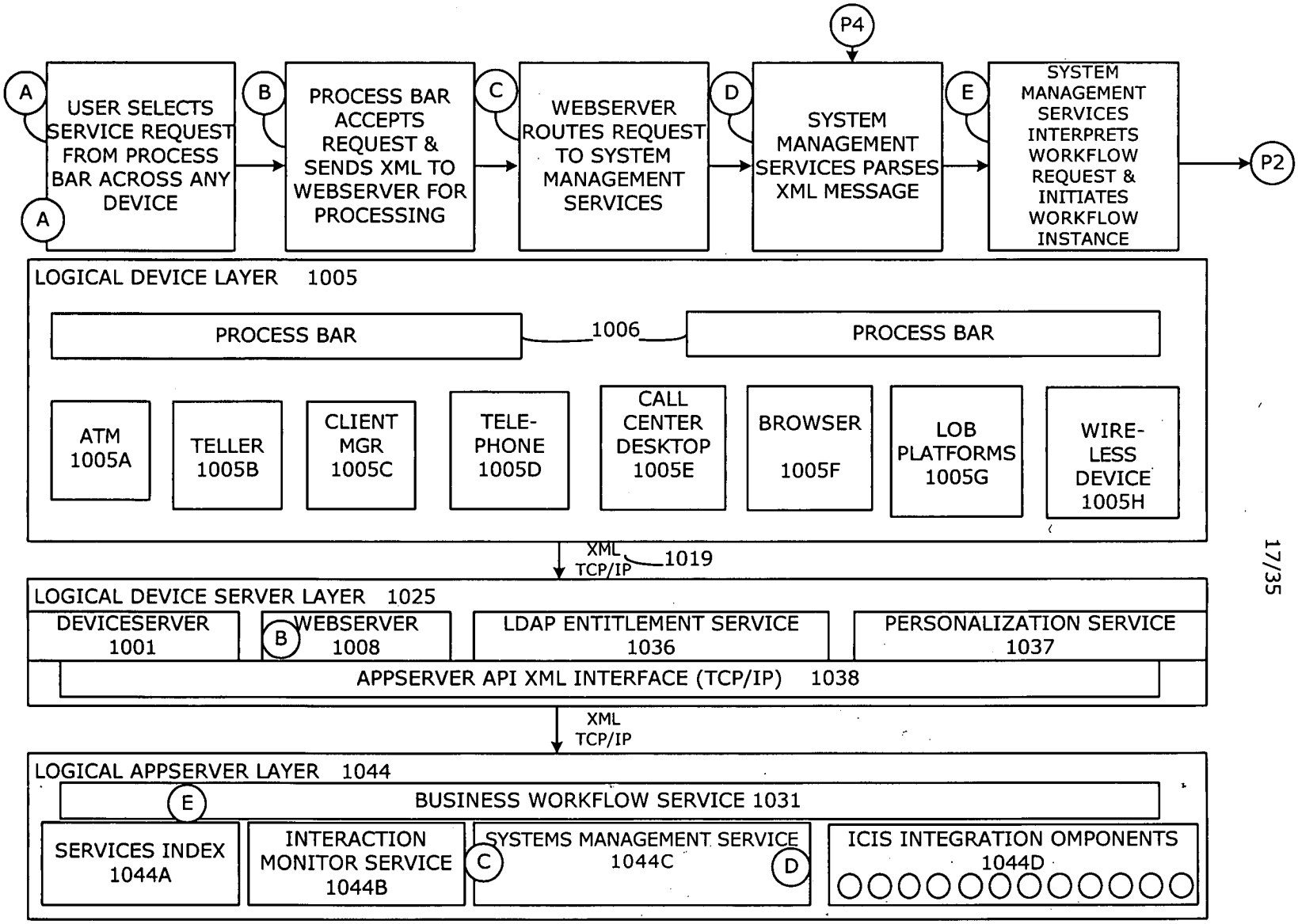
P4
A
USER SELECTS SERVICE REQUEST FROM PROCESS BAR ACROSS ANY DEVICE
A
B
PROCESS BAR ACCEPTS REQUEST & SENDS XML TO WEBSERVER FOR PROCESSING
C
WEBSERVER ROUTES REQUEST TO SYSTEM MANAGEMENT SERVICES
D
SYSTEM MANAGEMENT SERVICES PARSES XML MESSAGE
E
SYSTEM MANAGEMENT SERVICES INTERPRETS WORKFLOW REQUEST & INITIATES WORKFLOW INSTANCE
P2
LOGICAL DEVICE LAYER 1005
PROCESS BAR
1006
PROCESS BAR
ATM 1005A
TELLER 1005B
CLIENT MGR 1005C
TELE-PHONE 1005D
CALL CENTER DESKTOP 1005E
BROWSER 1005F
LOB PLATFORMS 1005G
WIRE-LESS DEVICE 1005H
XML TCP/IP
1019
LOGICAL DEVICE SERVER LAYER 1025
DEVICESERVER 1001
B
WEBSERVER 1008
LDAP ENTITLEMENT SERVICE 1036
PERSONALIZATION SERVICE 1037
APPSERVER API XML INTERFACE (TCP/IP) 1038
XML TCP/IP
LOGICAL APPSERVER LAYER 1044
E
BUSINESS WORKFLOW SERVICE 1031
SERVICES INDEX 1044A
INTERACTION MONITOR SERVICE 1044B
C
SYSTEMS MANAGEMENT SERVICE 1044C
D
ICIS INTEGRATION OMPONENTS 1044D

FIG.10C

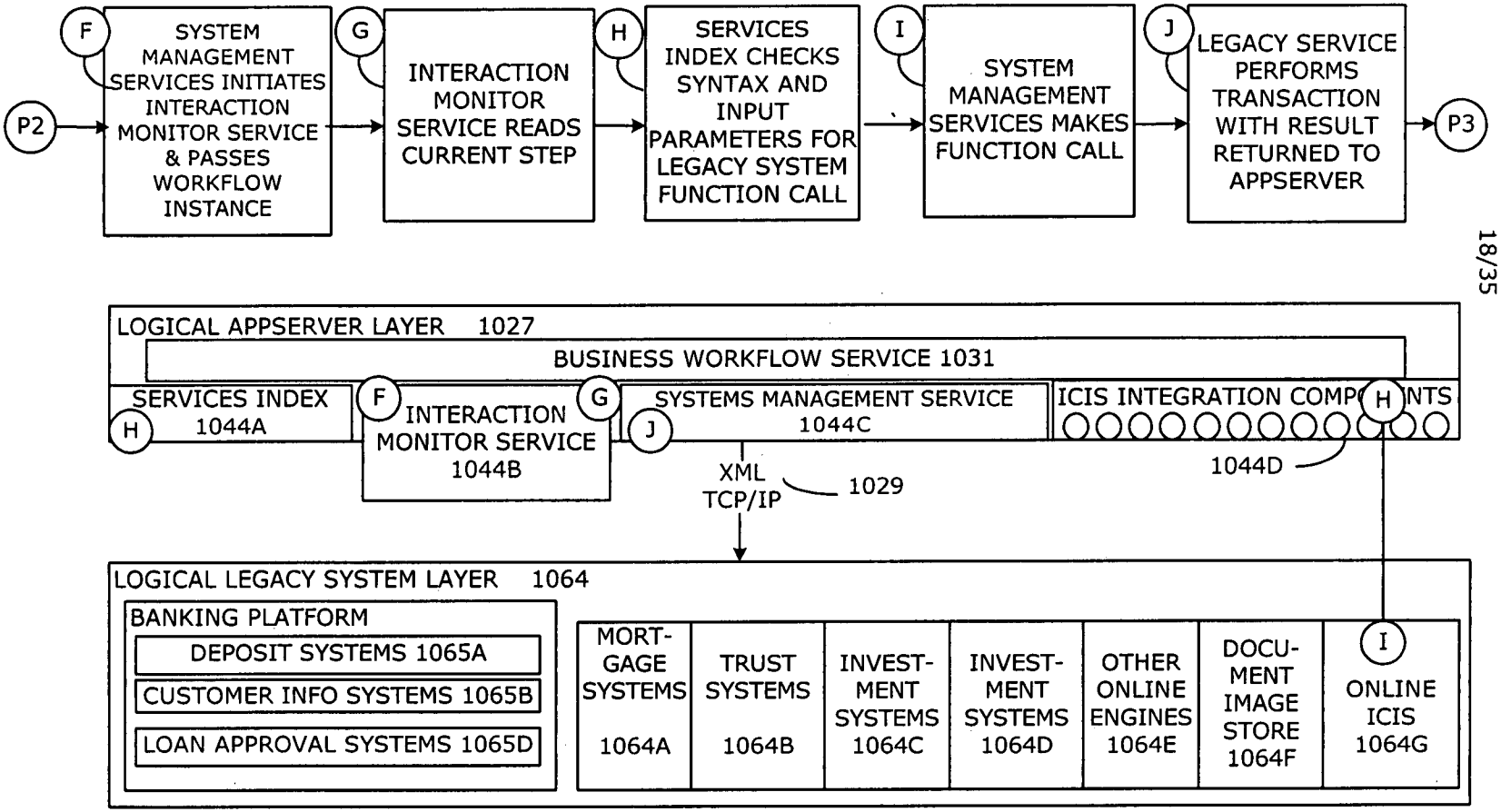
P2
F
SYSTEM MANAGEMENT SERVICES INITIATES INTERACTION MONITOR SERVICE & PASSES WORKFLOW INSTANCE
G
INTERACTION MONITOR SERVICE READS CURRENT STEP
H
SERVICES INDEX CHECKS SYNTAX AND INPUT PARAMETERS FOR LEGACY SYSTEM FUNCTION CALL
I
SYSTEM MANAGEMENT SERVICES MAKES FUNCTION CALL
J
LEGACY SERVICE PERFORMS TRANSACTION WITH RESULT RETURNED TO APPSERVER
P3
LOGICAL APPSERVER LAYER 1027
BUSINESS WORKFLOW SERVICE 1031
SERVICES INDEX 1044A
INTERACTION MONITOR SERVICE 1044B
SYSTEMS MANAGEMENT SERVICE 1044C
ICIS INTEGRATION COMP NTS
1044D
XML TCP/IP
1029
LOGICAL LEGACY SYSTEM LAYER 1064
BANKING PLATFORM
DEPOSIT SYSTEMS 1065A
CUSTOMER INFO SYSTEMS 1065B
LOAN APPROVAL SYSTEMS 1065D
MORT-GAGE SYSTEMS 1064A
TRUST SYSTEMS 1064B
INVEST-MENT SYSTEMS 1064C
INVEST-MENT SYSTEMS 1064D
OTHER ONLINE ENGINES 1064E
DOCU-MENT IMAGE STORE 1064F
ONLINE ICIS 1064G

FIG.10D

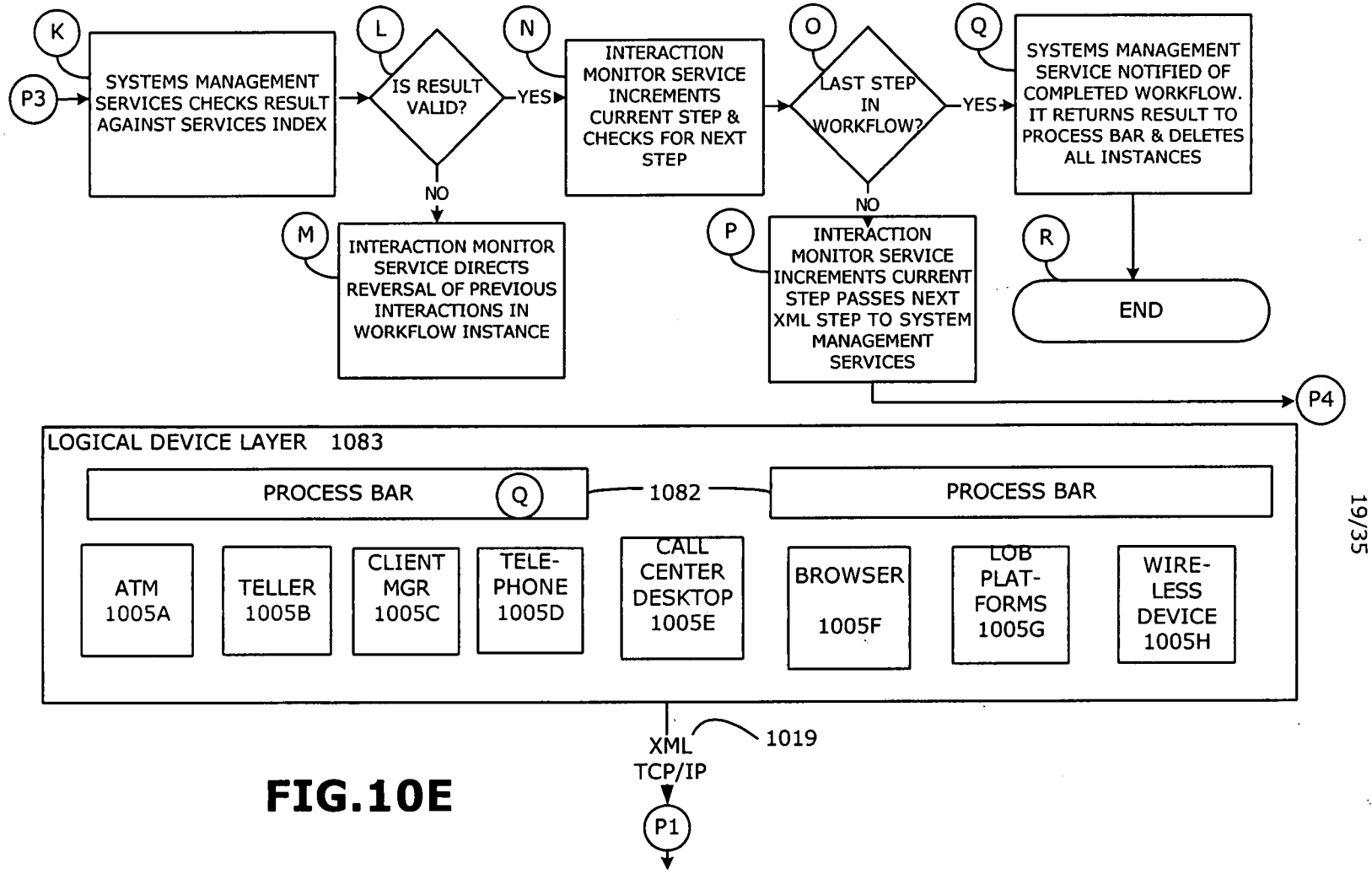
K
P3
SYSTEMS MANAGEMENT SERVICES CHECKS RESULT AGAINST SERVICES INDEX
L
IS RESULT VALID?
YES
NO
N
INTERACTION MONITOR SERVICE INCREMENTS CURRENT STEP & CHECKS FOR NEXT STEP
O
LAST STEP IN WORKFLOW?
YES
NO
Q
SYSTEMS MANAGEMENT SERVICE NOTIFIED OF COMPLETED WORKFLOW. IT RETURNS RESULT TO PROCESS BAR & DELETES ALL INSTANCES
M
INTERACTION MONITOR SERVICE DIRECTS REVERSAL OF PREVIOUS INTERACTIONS IN WORKFLOW INSTANCE
P
INTERACTION MONITOR SERVICE INCREMENTS CURRENT STEP PASSES NEXT XML STEP TO SYSTEM MANAGEMENT SERVICES
R
END
P4
LOGICAL DEVICE LAYER 1083
PROCESS BAR
Q
1082
PROCESS BAR
ATM 1005A
TELLER 1005B
CLIENT MGR 1005C
TELE-PHONE 1005D
CALL CENTER DESKTOP 1005E
BROWSER 1005F
LOB PLAT-FORMS 1005G
WIRE-LESS DEVICE 1005H
XML TCP/IP
1019
P1

FIG.10E

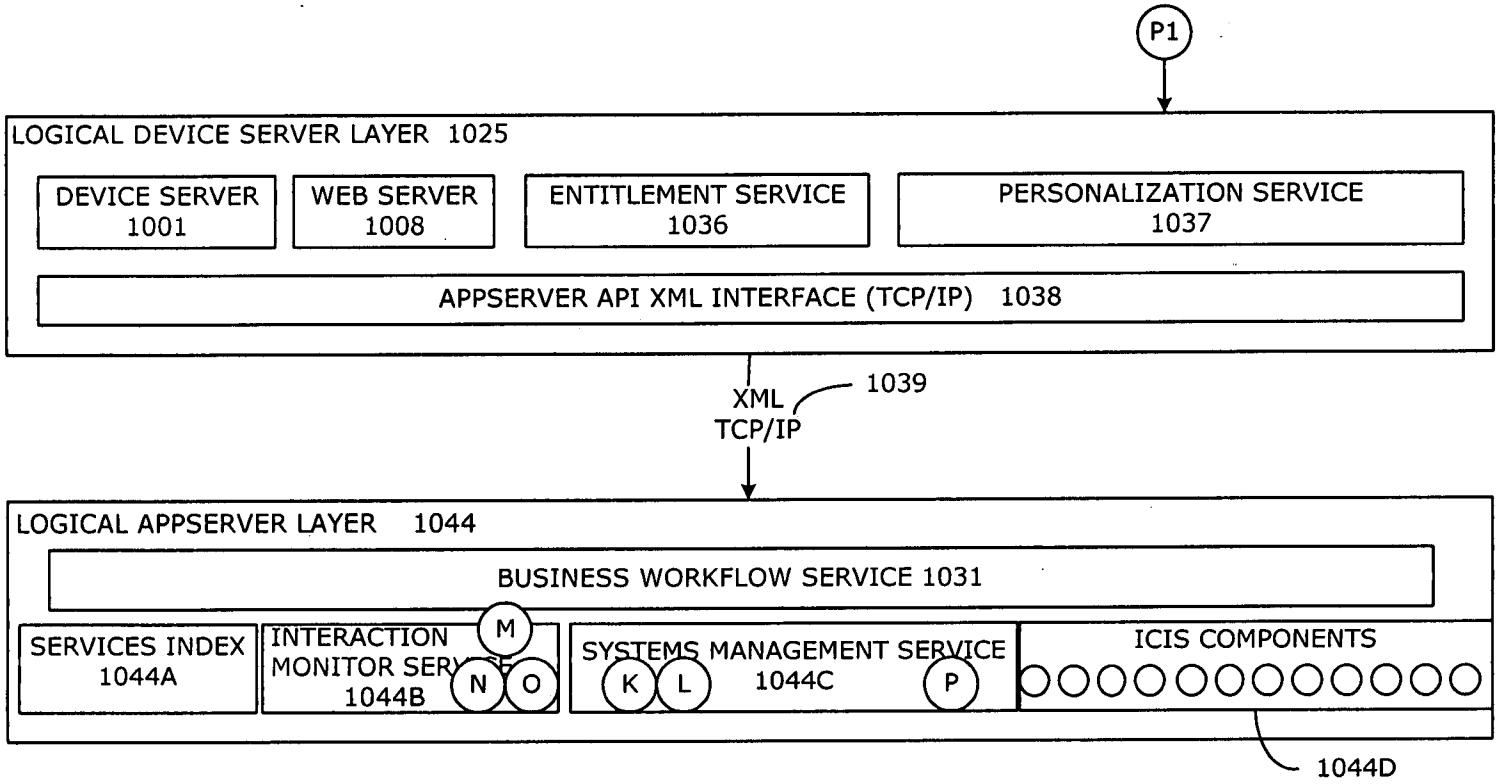
P1
LOGICAL DEVICE SERVER LAYER 1025
DEVICE SERVER 1001
WEB SERVER 1008
ENTITLEMENT SERVICE 1036
PERSONALIZATION SERVICE 1037
APPSERVER API XML INTERFACE (TCP/IP) 1038
XML
TCP/IP
1039
LOGICAL APPSERVER LAYER 1044
BUSINESS WORKFLOW SERVICE 1031
SERVICES INDEX 1044A
INTERACTION MONITOR SERVICE 1044B
M
N
O
SYSTEMS MANAGEMENT SERVICE 1044C
K
L
P
ICIS COMPONENTS
1044D

FIG.10F

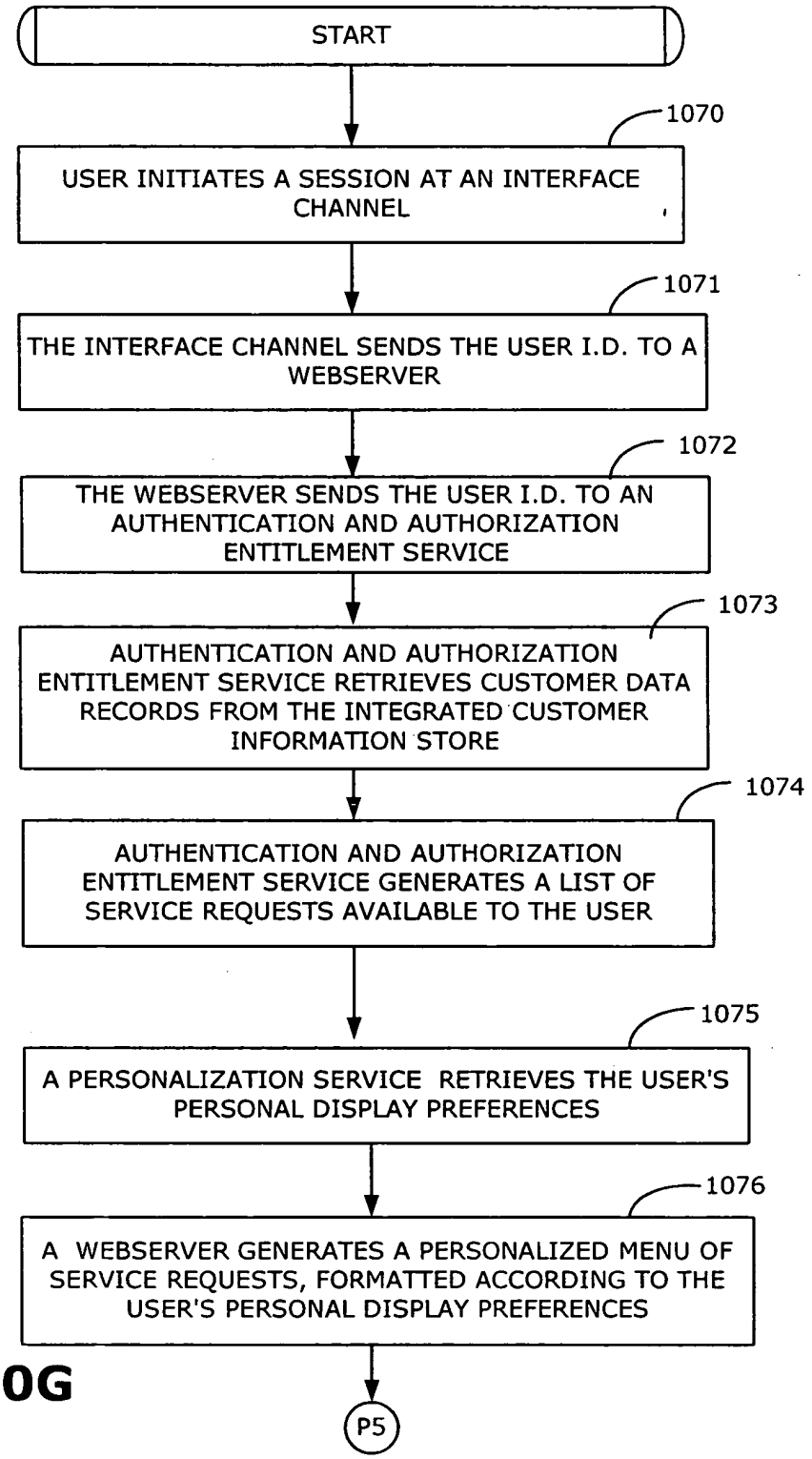
START
1070
USER INITIATES A SESSION AT AN INTERFACE CHANNEL
1071
THE INTERFACE CHANNEL SENDS THE USER I.D. TO A WEBSERVER
1072
THE WEBSERVER SENDS THE USER I.D. TO AN AUTHENTICATION AND AUTHORIZATION ENTITLEMENT SERVICE
1073
AUTHENTICATION AND AUTHORIZATION ENTITLEMENT SERVICE RETRIEVES CUSTOMER DATA RECORDS FROM THE INTEGRATED CUSTOMER INFORMATION STORE
1074
AUTHENTICATION AND AUTHORIZATION ENTITLEMENT SERVICE GENERATES A LIST OF SERVICE REQUESTS AVAILABLE TO THE USER
1075
A PERSONALIZATION SERVICE RETRIEVES THE USER'S PERSONAL DISPLAY PREFERENCES
1076
A WEBSERVER GENERATES A PERSONALIZED MENU OF SERVICE REQUESTS, FORMATTED ACCORDING TO THE USER'S PERSONAL DISPLAY PREFERENCES
P5

FIG.10G

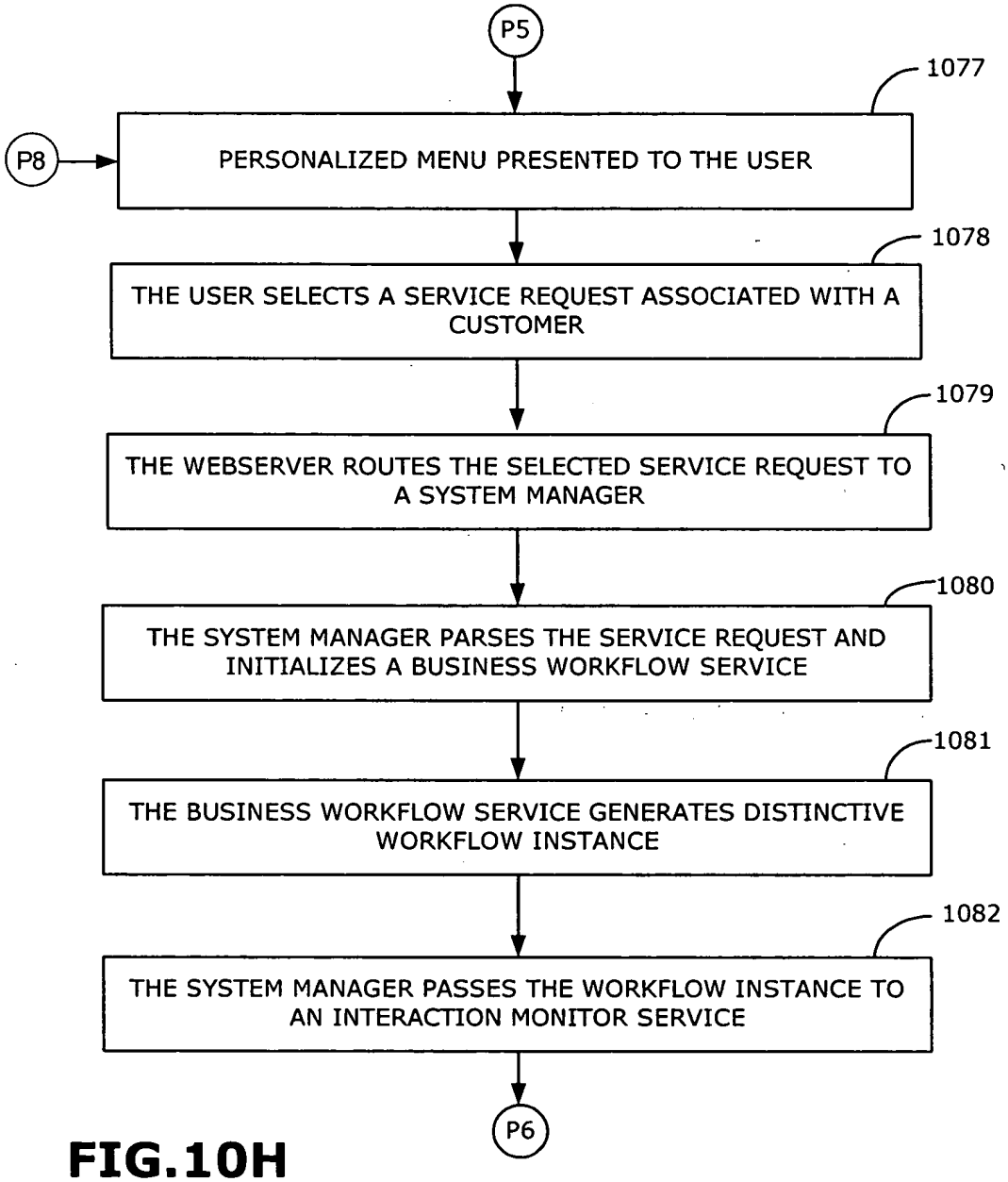
P5
1077
P8
PERSONALIZED MENU PRESENTED TO THE USER
1078
THE USER SELECTS A SERVICE REQUEST ASSOCIATED WITH A CUSTOMER
1079
THE WEBSERVER ROUTES THE SELECTED SERVICE REQUEST TO A SYSTEM MANAGER
1080
THE SYSTEM MANAGER PARSES THE SERVICE REQUEST AND INITIALIZES A BUSINESS WORKFLOW SERVICE
1081
THE BUSINESS WORKFLOW SERVICE GENERATES DISTINCTIVE WORKFLOW INSTANCE
1082
THE SYSTEM MANAGER PASSES THE WORKFLOW INSTANCE TO AN INTERACTION MONITOR SERVICE
P6

FIG.10H

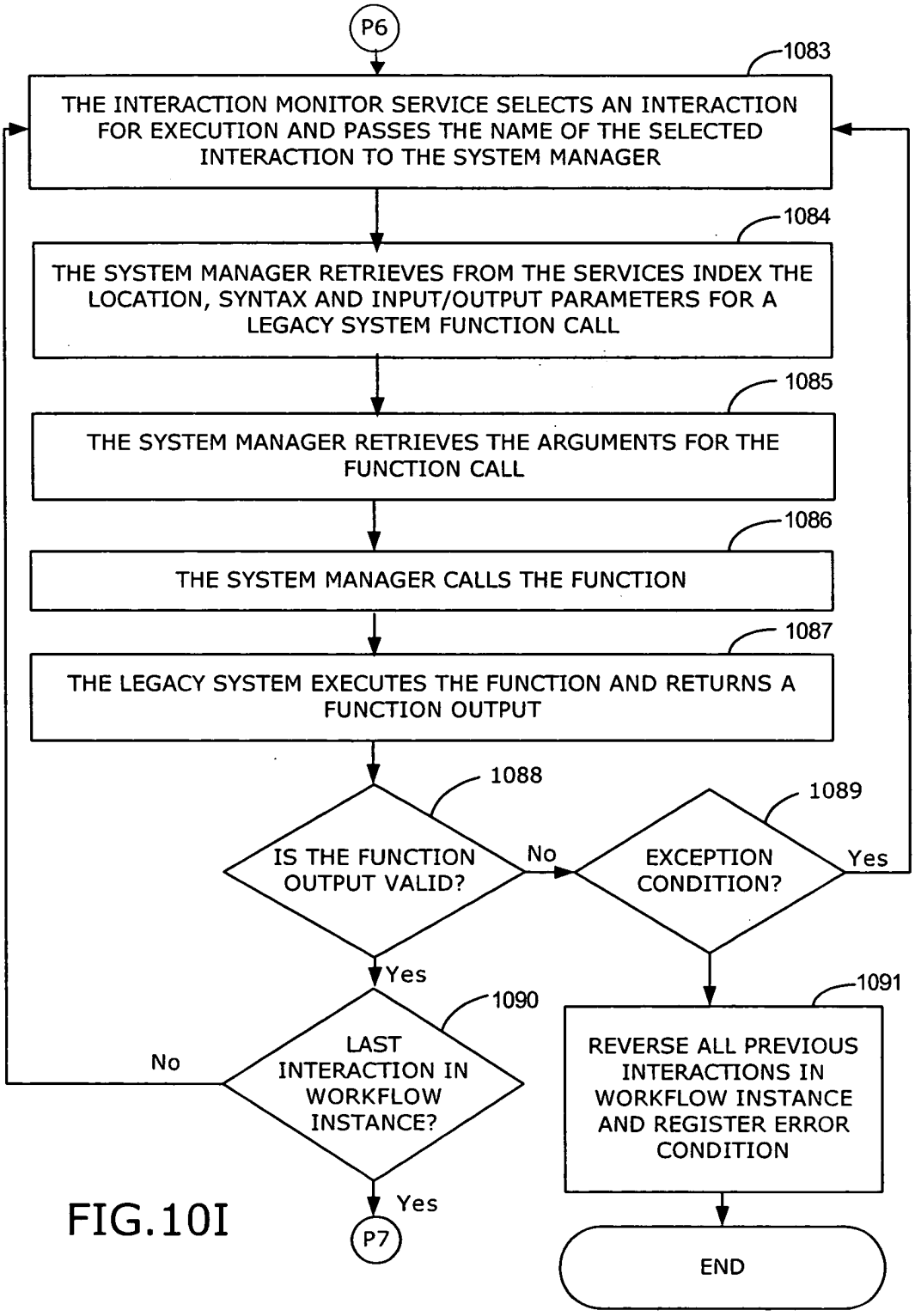
P6
1083
THE INTERACTION MONITOR SERVICE SELECTS AN INTERACTION FOR EXECUTION AND PASSES THE NAME OF THE SELECTED INTERACTION TO THE SYSTEM MANAGER
1084
THE SYSTEM MANAGER RETRIEVES FROM THE SERVICES INDEX THE LOCATION, SYNTAX AND INPUT/OUTPUT PARAMETERS FOR A LEGACY SYSTEM FUNCTION CALL
1085
THE SYSTEM MANAGER RETRIEVES THE ARGUMENTS FOR THE FUNCTION CALL
1086
THE SYSTEM MANAGER CALLS THE FUNCTION
1087
THE LEGACY SYSTEM EXECUTES THE FUNCTION AND RETURNS A FUNCTION OUTPUT
1088
IS THE FUNCTION OUTPUT VALID?
No
1089
EXCEPTION CONDITION?
Yes
Yes
1090
LAST INTERACTION IN WORKFLOW INSTANCE?
No
Yes
P7
1091
REVERSE ALL PREVIOUS INTERACTIONS IN WORKFLOW INSTANCE AND REGISTER ERROR CONDITION
END

FIG.10I

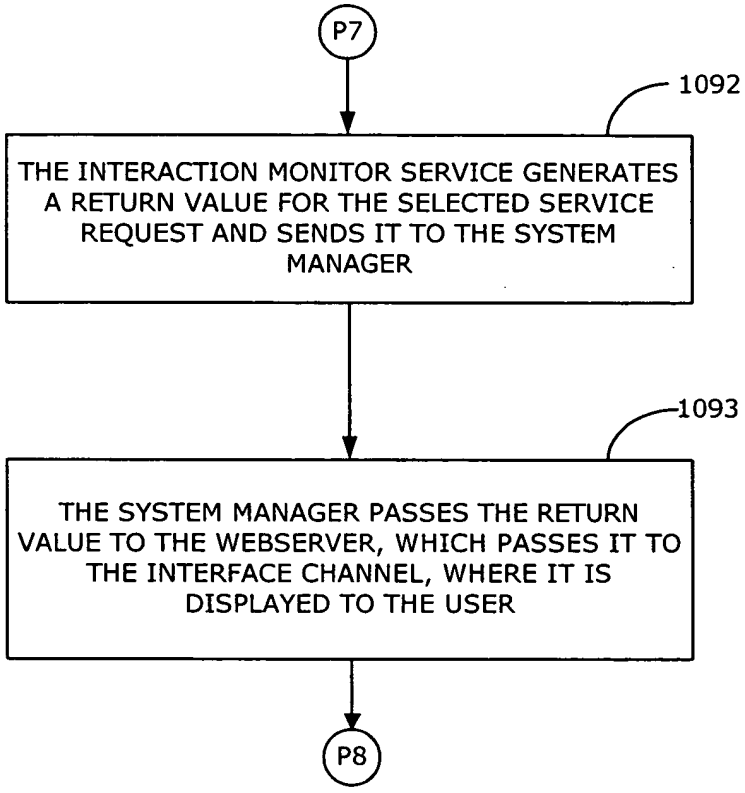
P7
1092
THE INTERACTION MONITOR SERVICE GENERATES A RETURN VALUE FOR THE SELECTED SERVICE REQUEST AND SENDS IT TO THE SYSTEM MANAGER
1093
THE SYSTEM MANAGER PASSES THE RETURN VALUE TO THE WEBSERVER, WHICH PASSES IT TO THE INTERFACE CHANNEL, WHERE IT IS DISPLAYED TO THE USER
P8

FIG.10J

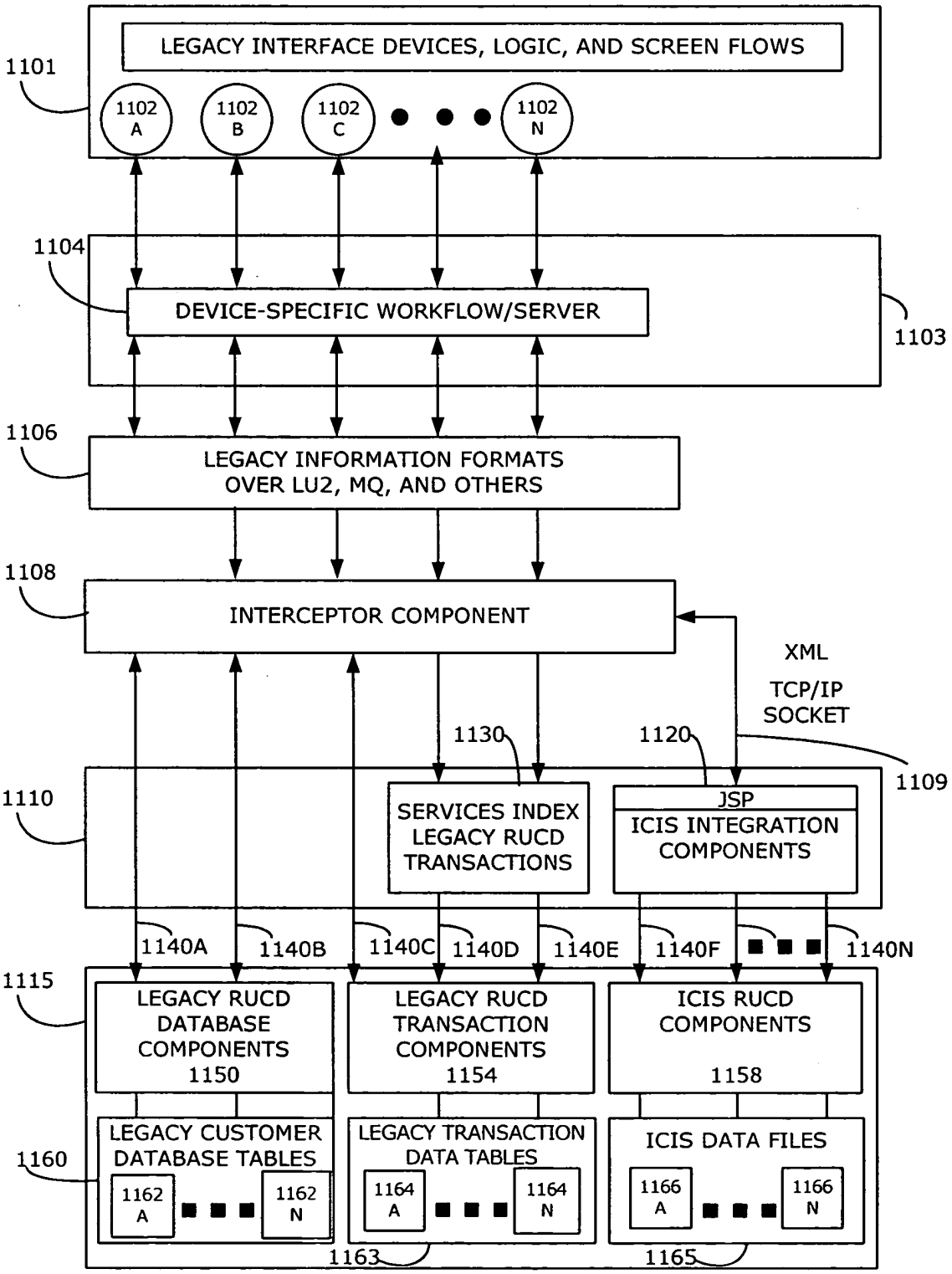
LEGACY INTERFACE DEVICES, LOGIC, AND SCREEN FLOWS
1101
1102 A
1102 B
1102 C
1102 N
1104
DEVICE-SPECIFIC WORKFLOW/SERVER
1103
1106
LEGACY INFORMATION FORMATS OVER LU2, MQ, AND OTHERS
1108
INTERCEPTOR COMPONENT
XML
TCP/IP SOCKET
1109
1130
1120
1110
SERVICES INDEX LEGACY RUCD TRANSACTIONS
JSP
ICIS INTEGRATION COMPONENTS
1140A
1140B
1140C
1140D
1140E
1140F
1140N
1115
LEGACY RUCD DATABASE COMPONENTS 1150
LEGACY RUCD TRANSACTION COMPONENTS 1154
ICIS RUCD COMPONENTS 1158
1160
LEGACY CUSTOMER DATABASE TABLES
1162 A
1162 N
LEGACY TRANSACTION DATA TABLES
1164 A
1164 N
ICIS DATA FILES
1166 A
1166 N
1163
1165

FIG.11

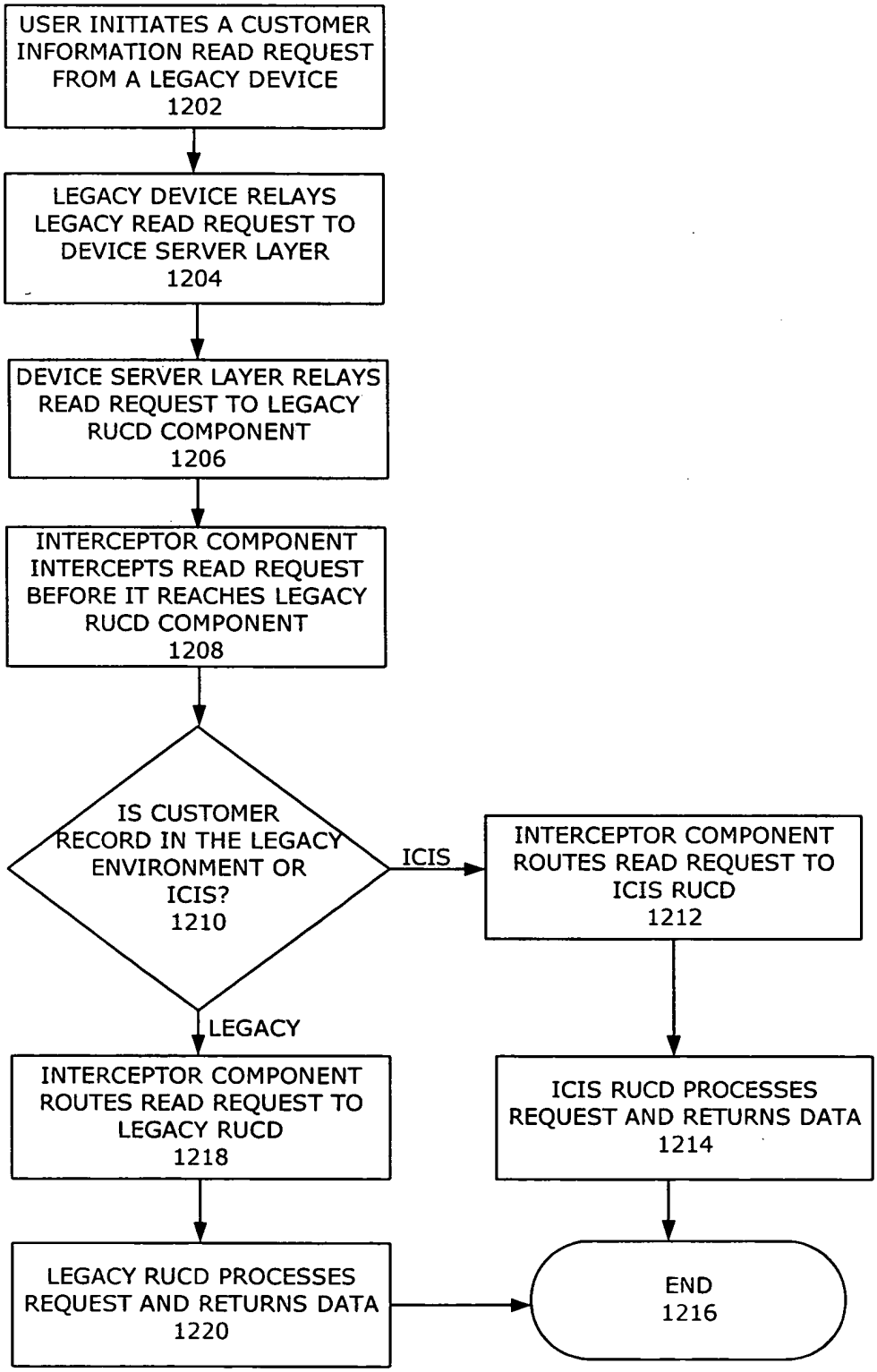
USER INITIATES A CUSTOMER INFORMATION READ REQUEST FROM A LEGACY DEVICE 1202
LEGACY DEVICE RELAYS LEGACY READ REQUEST TO DEVICE SERVER LAYER 1204
DEVICE SERVER LAYER RELAYS READ REQUEST TO LEGACY RUCD COMPONENT 1206
INTERCEPTOR COMPONENT INTERCEPTS READ REQUEST BEFORE IT REACHES LEGACY RUCD COMPONENT 1208
IS CUSTOMER RECORD IN THE LEGACY ENVIRONMENT OR ICIS? 1210
ICIS
INTERCEPTOR COMPONENT ROUTES READ REQUEST TO ICIS RUCD 1212
LEGACY
INTERCEPTOR COMPONENT ROUTES READ REQUEST TO LEGACY RUCD 1218
ICIS RUCD PROCESSES REQUEST AND RETURNS DATA 1214
LEGACY RUCD PROCESSES REQUEST AND RETURNS DATA 1220
END 1216

FIG.12

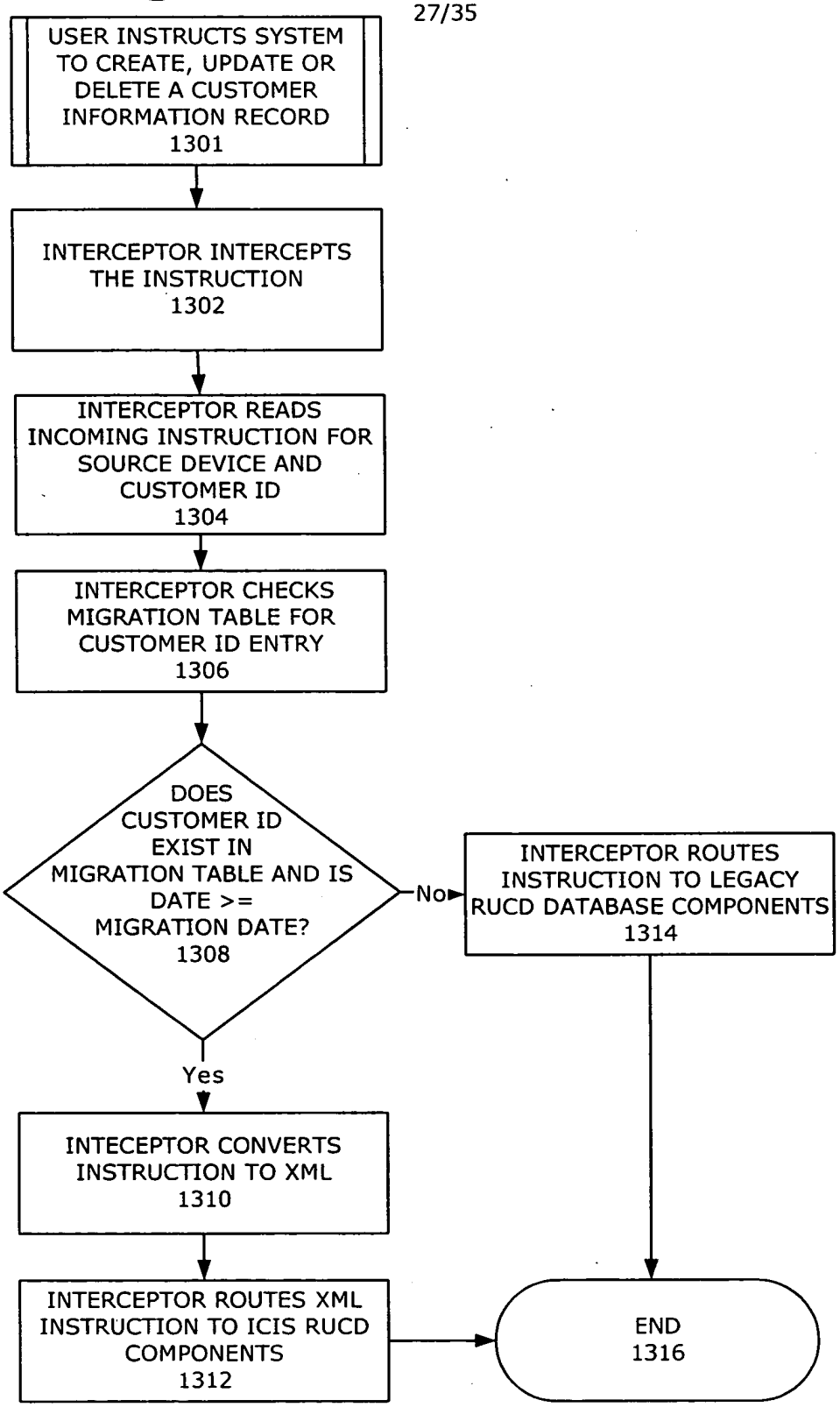
USER INSTRUCTS SYSTEM TO CREATE, UPDATE OR DELETE A CUSTOMER INFORMATION RECORD 1301
INTERCEPTOR INTERCEPTS THE INSTRUCTION 1302
INTERCEPTOR READS INCOMING INSTRUCTION FOR SOURCE DEVICE AND CUSTOMER ID 1304
INTERCEPTOR CHECKS MIGRATION TABLE FOR CUSTOMER ID ENTRY 1306
DOES CUSTOMER ID EXIST IN MIGRATION TABLE AND IS DATE >= MIGRATION DATE? 1308
No
INTERCEPTOR ROUTES INSTRUCTION TO LEGACY RUCD DATABASE COMPONENTS 1314
Yes
INTECEPTOR CONVERTS INSTRUCTION TO XML 1310
INTERCEPTOR ROUTES XML INSTRUCTION TO ICIS RUCD COMPONENTS 1312
END 1316

FIG.13

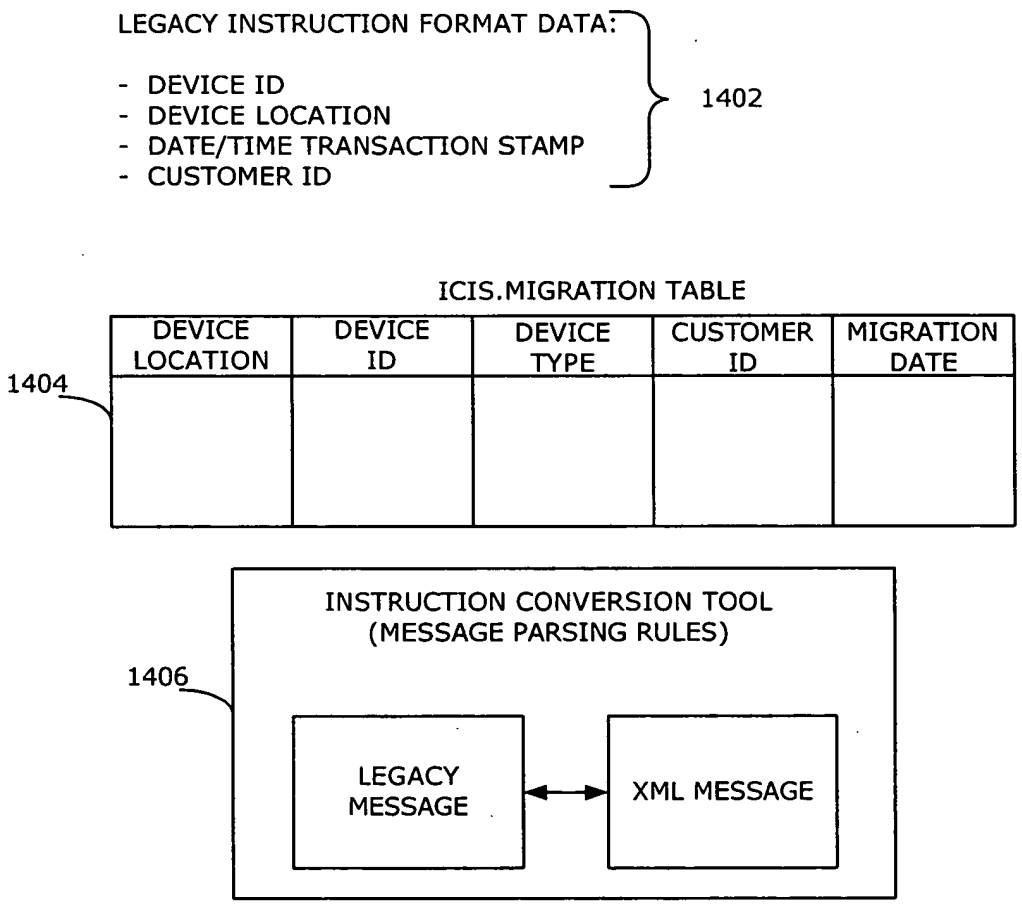
LEGACY INSTRUCTION FORMAT DATA:
- DEVICE ID
- DEVICE LOCATION
- DATE/TIME TRANSACTION STAMP
- CUSTOMER ID
1402
ICIS.MIGRATION TABLE
DEVICE LOCATION
DEVICE ID
DEVICE TYPE
CUSTOMER ID
MIGRATION DATE
1404
INSTRUCTION CONVERSION TOOL
(MESSAGE PARSING RULES)
1406
LEGACY MESSAGE
XML MESSAGE

FIG.14

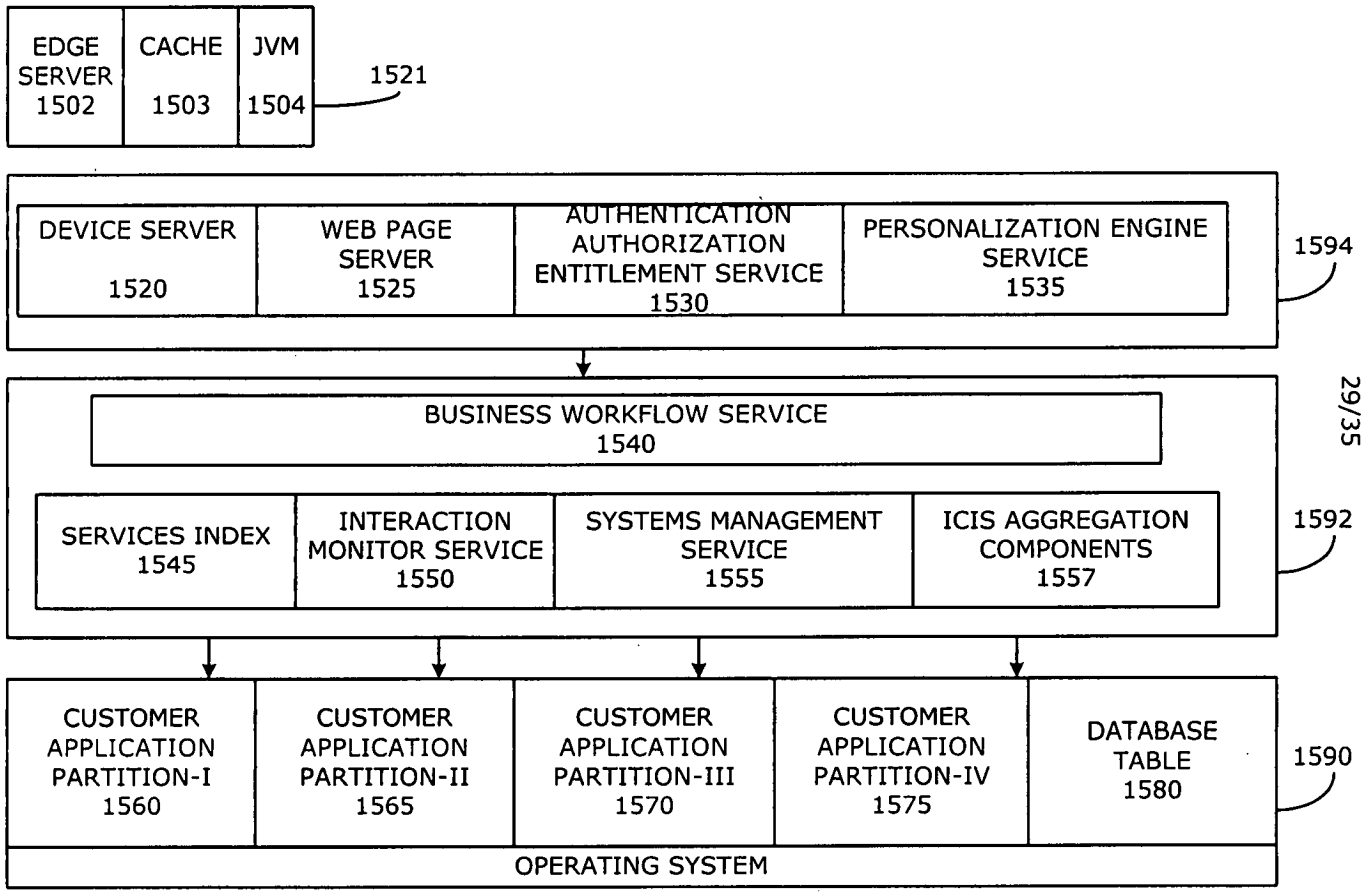
EDGE SERVER 1502
CACHE 1503
JVM 1504
1521
DEVICE SERVER 1520
WEB PAGE SERVER 1525
AUTHENTICATION AUTHORIZATION ENTITLEMENT SERVICE 1530
PERSONALIZATION ENGINE SERVICE 1535
1594
BUSINESS WORKFLOW SERVICE 1540
SERVICES INDEX 1545
INTERACTION MONITOR SERVICE 1550
SYSTEMS MANAGEMENT SERVICE 1555
ICIS AGGREGATION COMPONENTS 1557
1592
CUSTOMER APPLICATION PARTITION-I 1560
CUSTOMER APPLICATION PARTITION-II 1565
CUSTOMER APPLICATION PARTITION-III 1570
CUSTOMER APPLICATION PARTITION-IV 1575
DATABASE TABLE 1580
1590
OPERATING SYSTEM

FIG.15

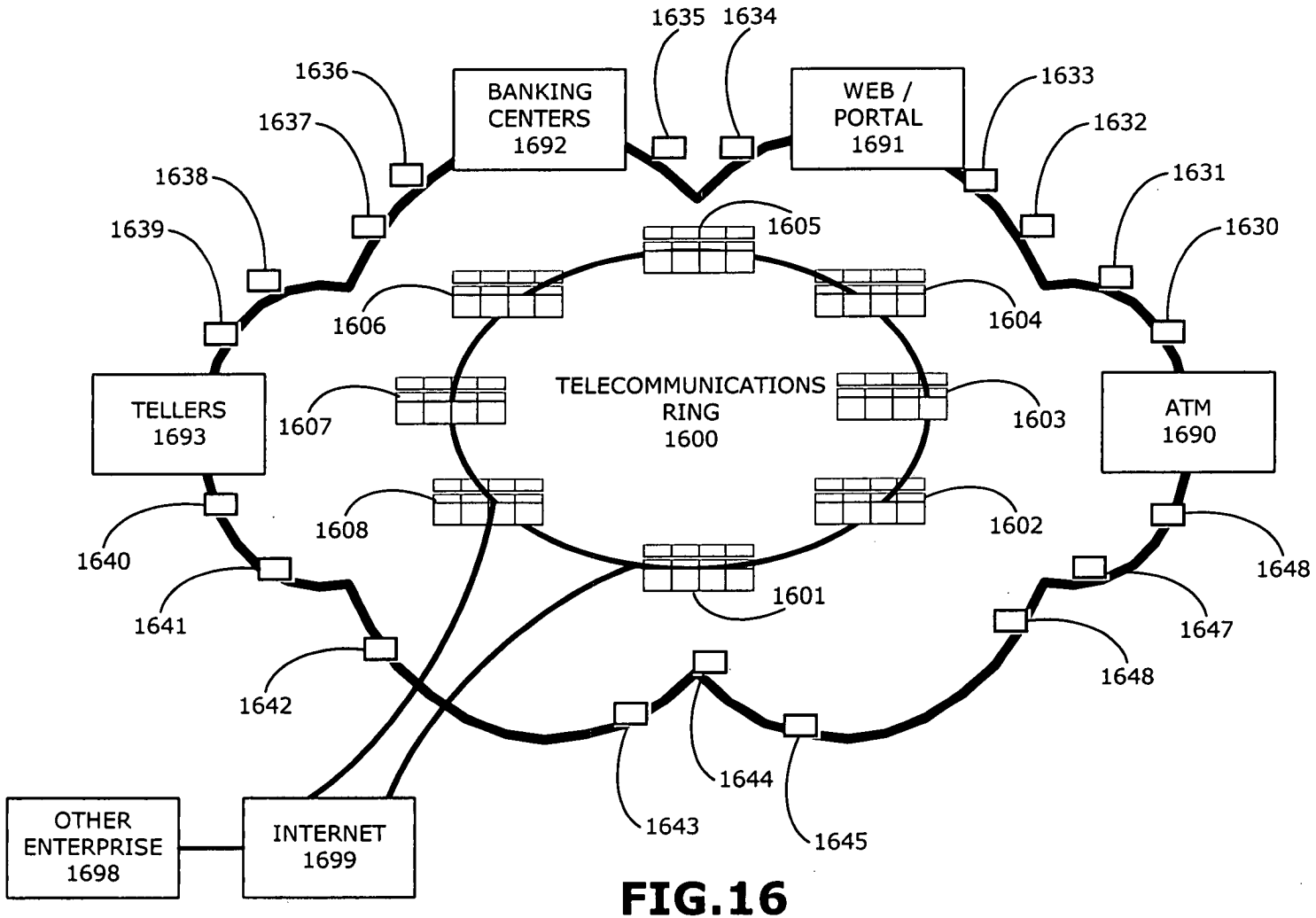
BANKING CENTERS 1692
WEB / PORTAL 1691
TELLERS 1693
ATM 1690
TELECOMMUNICATIONS RING 1600
OTHER ENTERPRISE 1698
INTERNET 1699
1635
1634
1636
1633
1637
1632
1638
1631
1639
1630
1605
1606
1604
1607
1603
1608
1602
1640
1601
1648
1641
1647
1642
1648
1644
1643
1645

FIG.16

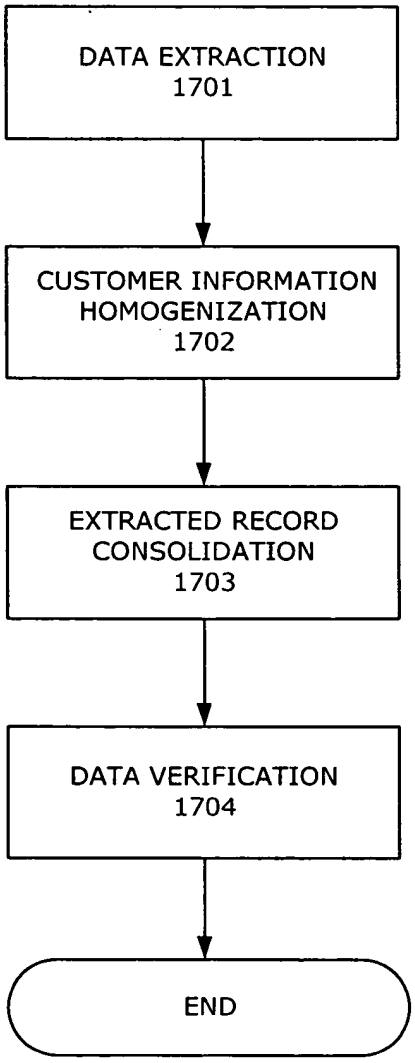
DATA EXTRACTION
1701
CUSTOMER INFORMATION
HOMOGENIZATION
1702
EXTRACTED RECORD
CONSOLIDATION
1703
DATA VERIFICATION
1704
END

FIG.17

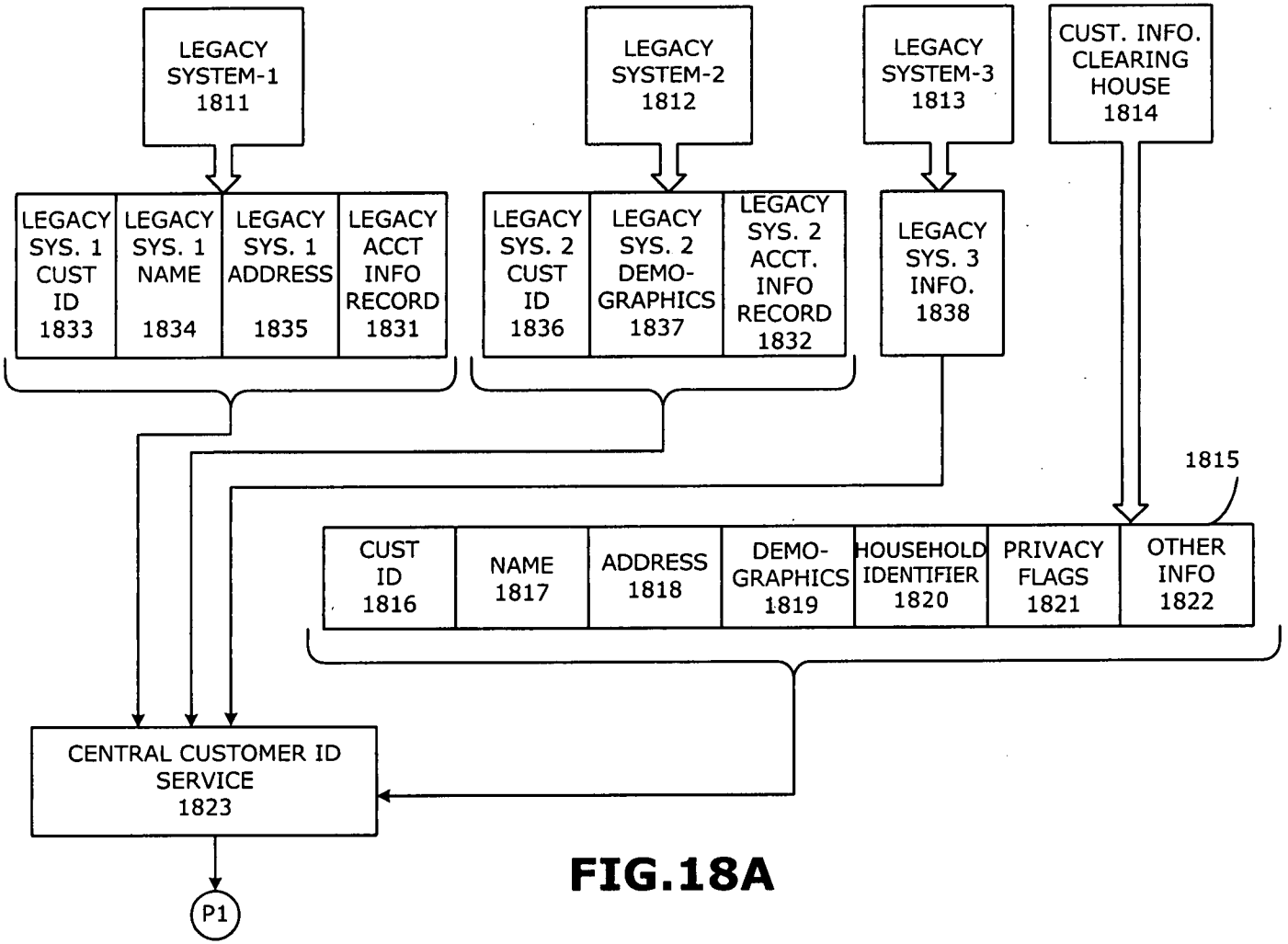
LEGACY SYSTEM-1 1811
LEGACY SYSTEM-2 1812
LEGACY SYSTEM-3 1813
CUST. INFO. CLEARING HOUSE 1814
LEGACY SYS. 1 CUST ID 1833
LEGACY SYS. 1 NAME 1834
LEGACY SYS. 1 ADDRESS 1835
LEGACY ACCT INFO RECORD 1831
LEGACY SYS. 2 CUST ID 1836
LEGACY SYS. 2 DEMO-GRAPHICS 1837
LEGACY SYS. 2 ACCT. INFO RECORD 1832
LEGACY SYS. 3 INFO. 1838
1815
CUST ID 1816
NAME 1817
ADDRESS 1818
DEMO-GRAPHICS 1819
HOUSEHOLD IDENTIFIER 1820
PRIVACY FLAGS 1821
OTHER INFO 1822
CENTRAL CUSTOMER ID SERVICE 1823
P1

FIG.18A

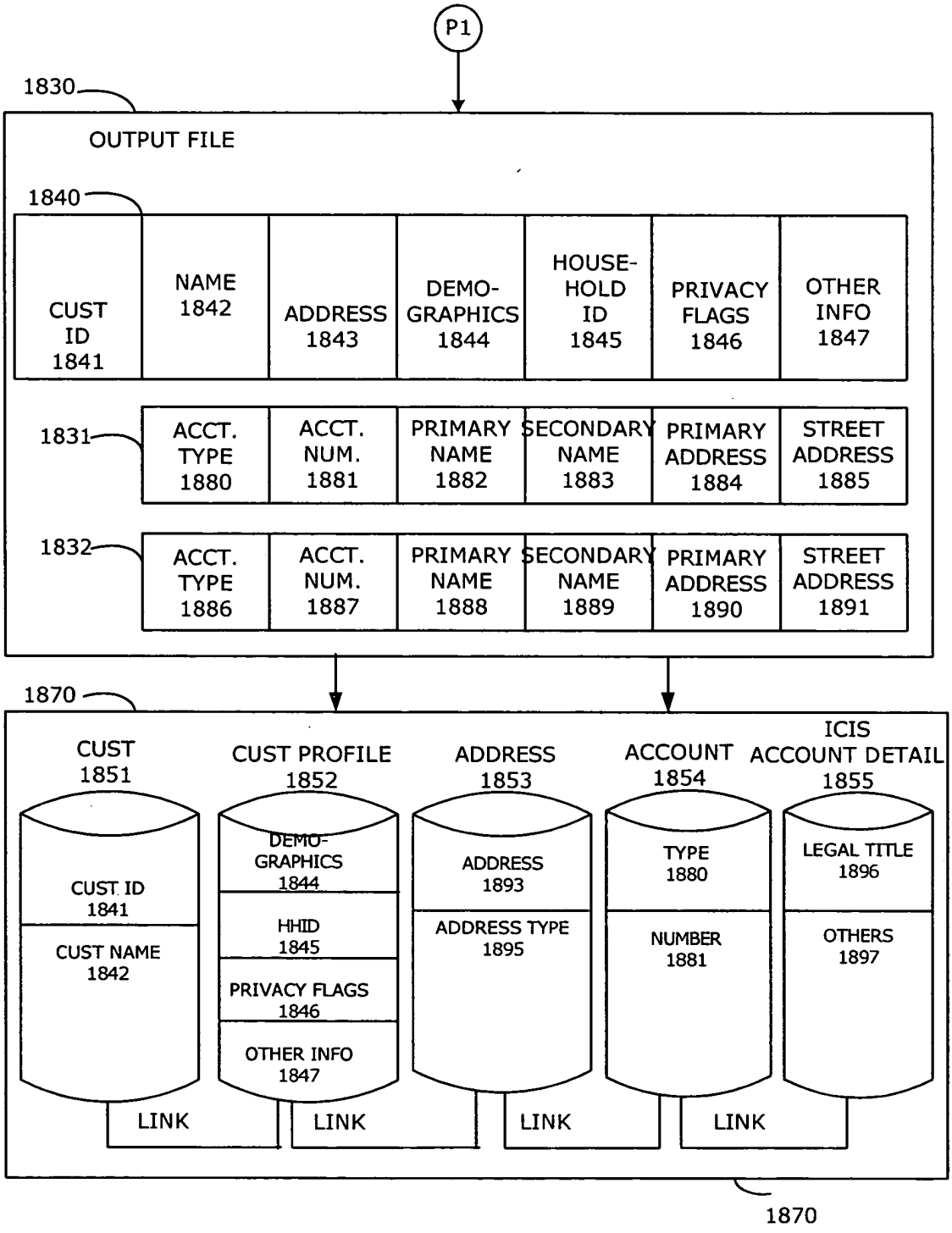
P1
1830
OUTPUT FILE
1840
CUST ID 1841
NAME 1842
ADDRESS 1843
DEMO-GRAPHICS 1844
HOUSE-HOLD ID 1845
PRIVACY FLAGS 1846
OTHER INFO 1847
1831
ACCT. TYPE 1880
ACCT. NUM. 1881
PRIMARY NAME 1882
SECONDARY NAME 1883
PRIMARY ADDRESS 1884
STREET ADDRESS 1885
1832
ACCT. TYPE 1886
ACCT. NUM. 1887
PRIMARY NAME 1888
SECONDARY NAME 1889
PRIMARY ADDRESS 1890
STREET ADDRESS 1891
1870
CUST 1851
CUST ID 1841
CUST NAME 1842
CUST PROFILE 1852
DEMO-GRAPHICS 1844
HHID 1845
PRIVACY FLAGS 1846
OTHER INFO 1847
ADDRESS 1853
ADDRESS 1893
ADDRESS TYPE 1895
ACCOUNT 1854
TYPE 1880
NUMBER 1881
ICIS ACCOUNT DETAIL 1855
LEGAL TITLE 1896
OTHERS 1897
LINK
LINK
LINK
LINK
1870

FIG.18B

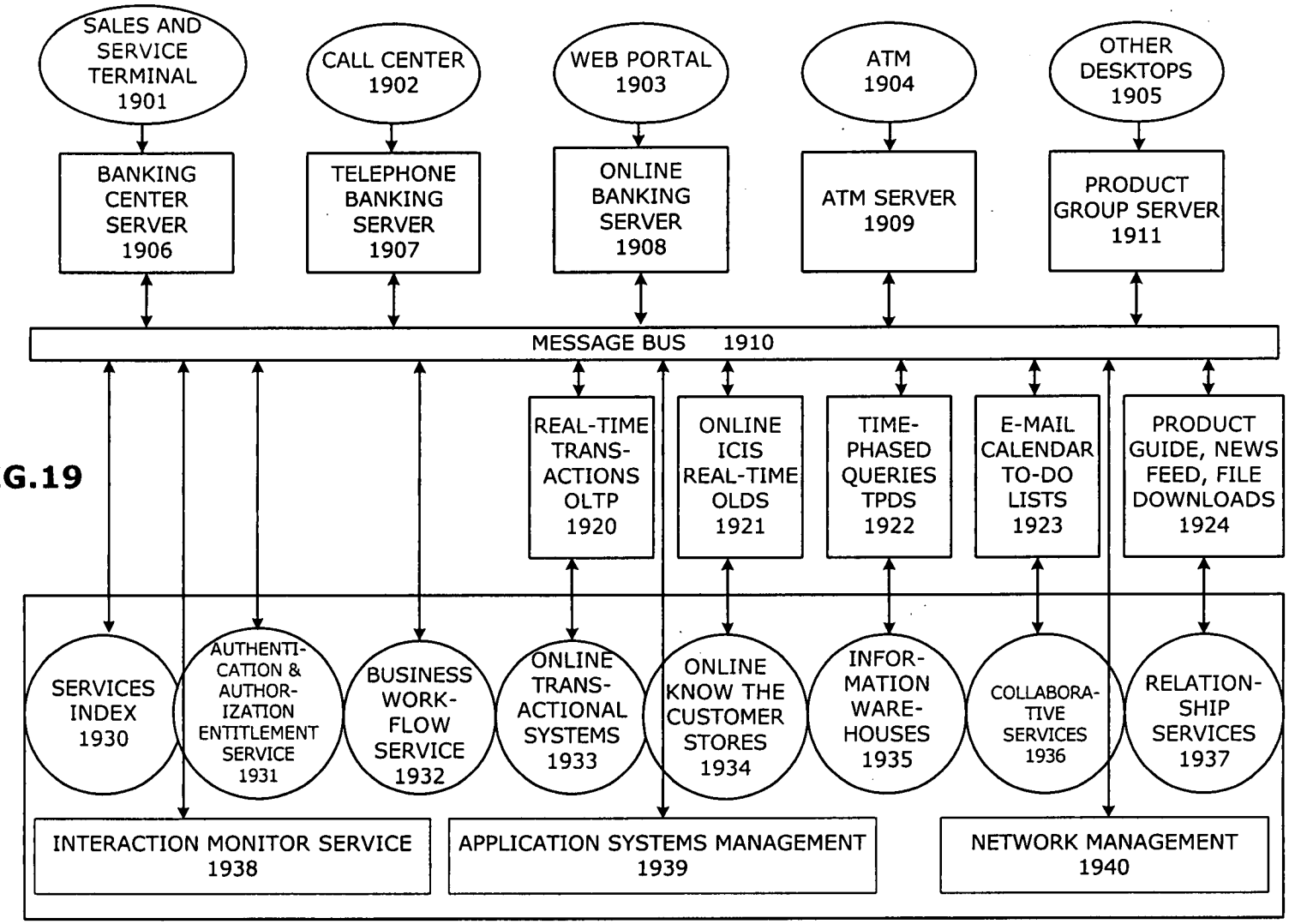
SALES AND SERVICE TERMINAL 1901
CALL CENTER 1902
WEB PORTAL 1903
ATM 1904
OTHER DESKTOPS 1905
BANKING CENTER SERVER 1906
TELEPHONE BANKING SERVER 1907
ONLINE BANKING SERVER 1908
ATM SERVER 1909
PRODUCT GROUP SERVER 1911
MESSAGE BUS 1910
REAL-TIME TRANS-ACTIONS OLTP 1920
ONLINE ICIS REAL-TIME OLDS 1921
TIME-PHASED QUERIES TPDS 1922
E-MAIL CALENDAR TO-DO LISTS 1923
PRODUCT GUIDE, NEWS FEED, FILE DOWNLOADS 1924
SERVICES INDEX 1930
AUTHENTI-CATION & AUTHOR-IZATION ENTITLEMENT SERVICE 1931
BUSINESS WORK-FLOW SERVICE 1932
ONLINE TRANS-ACTIONAL SYSTEMS 1933
ONLINE KNOW THE CUSTOMER STORES 1934
INFOR-MATION WARE-HOUSES 1935
COLLABORA-TIVE SERVICES 1936
RELATION-SHIP SERVICES 1937
INTERACTION MONITOR SERVICE 1938
APPLICATION SYSTEMS MANAGEMENT 1939
NETWORK MANAGEMENT 1940

FIG.19

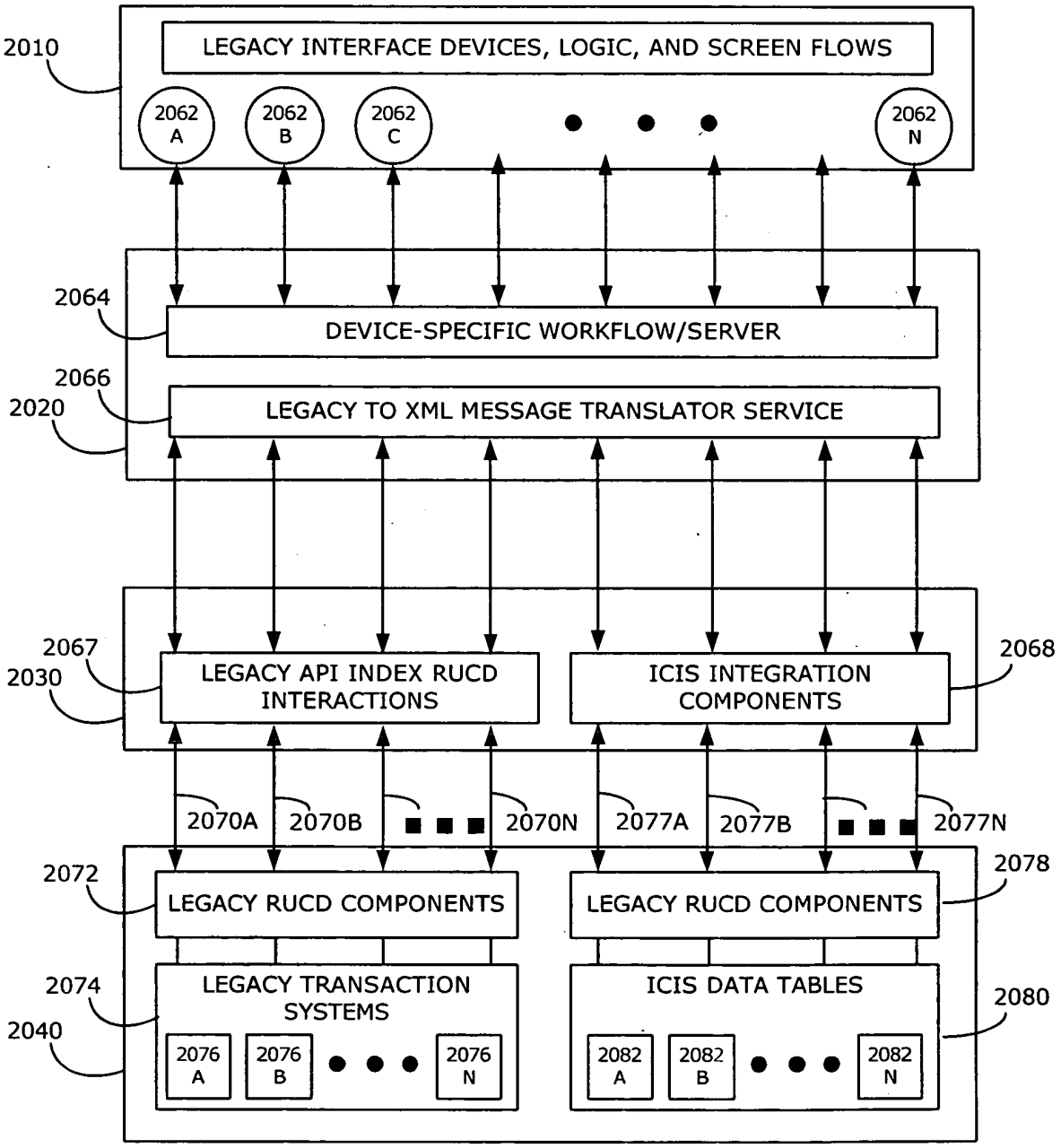
2010
LEGACY INTERFACE DEVICES, LOGIC, AND SCREEN FLOWS
2062 A
2062 B
2062 C
2062 N
2064
DEVICE-SPECIFIC WORKFLOW/SERVER
2066
2020
LEGACY TO XML MESSAGE TRANSLATOR SERVICE
2067
2030
LEGACY API INDEX RUCD INTERACTIONS
ICIS INTEGRATION COMPONENTS
2068
2070A
2070B
2070N
2077A
2077B
2077N
2072
LEGACY RUCD COMPONENTS
LEGACY RUCD COMPONENTS
2078
2074
2040
LEGACY TRANSACTION SYSTEMS
ICIS DATA TABLES
2080
2076 A
2076 B
2076 N
2082 A
2082 B
2082 N

FIG.20